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ABSTRACT

A survey of noncredit activities in institutions of  
higher education is presented. Contents include refresher activities,  
health service activities, technical occupations, and registration  
figures. The survey was conducted by means of a questionnaire sent to  
all institutions of higher education. (CK)

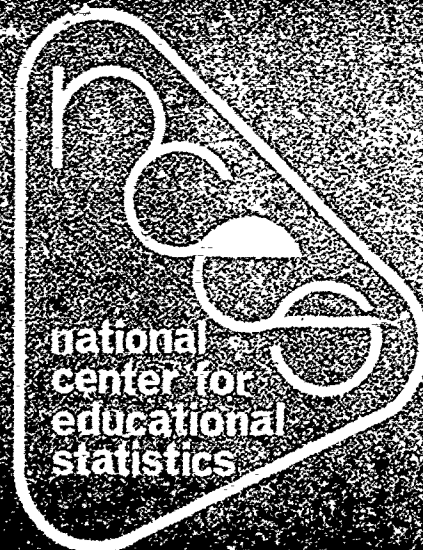
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## **CONTINUING EDUCATION**

# **Noncredit Activities in Institutions of Higher Education 1967-68**

**Professional and Technical  
Refresher courses**



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### HIGHLIGHTS

Almost 1 million registrations were reported in noncredit refresher courses in professional and technical occupations by more than 60 percent of the 1,102 colleges and universities which offer non-credit activities.

Total registrations in noncredit continuing education activities in professional and technical occupations were related to level of institution: universities accounted for 74.5 percent; other 4-year and 2-year institutions, 21.3 and 4.2 percent, respectively.

More than one-half of the institutions that offered these activities were other 4-year institutions, but universities had nearly 75 percent of the registrations.

Education courses were the most frequently reported noncredit refresher activities and accounted for 3 out of 10 of the total registrations. The education courses were offered by 312 of the 686 institutions with refresher activities.

Of the total registrations in professional and technical occupational refresher courses, 17.9 percent were in health fields.

Approximately two-thirds of the 216 institutions with refresher activities in the health fields were publicly controlled institutions, and they had over three-fourths of these registrations. Universities alone (public and private) accounted for 4 out of 5 of these registrations.

The nursing profession was served by more institutions than any other health profession or technical occupation, but most registrations were reported in the field of medicine.

About 95 percent of the institutions with noncredit refresher activities in agriculture and forestry were publicly controlled, and they had approximately 98 percent of the total registrations in that field.

DHEW Publication No. (OE) 73-11405

# **NONCREDIT ACTIVITIES IN INSTITUTIONS OF HIGHER EDUCATION 1967-68**

## **Professional and Technical Refresher courses**

By

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## FOREWORD

A variety of factors motivate people to participate in adult and continuing education. Some pursue adult education to provide a base for a more complete personal life, others use adult education to develop hobbies or other recreational interests. Still others use adult education to provide knowledge necessary to keep abreast of new developments in their career fields.

Data for this report came from the comprehensive Higher Education General Information Survey (HEGIS) conducted by the National Center for Educational Statistics in the summer and fall of 1968. This survey obtained information on the extent to which colleges and universities offered adult and continuing education, the total registrations, the methods of instruction utilized, and the type of courses offered.

The results are being reported in a series of publications, of which this is the third. The first presented the distribution of institutions sponsoring noncredit activities. The second described registrations.

This initial survey of adult higher education was developed under the direction of Morris B. Ullman, then the Chief of the Adult and Vocational Education Surveys Branch. The survey itself was directed by Florence B. Kemp. J. Eugene Welden, of the Community Services and Continuing Education Branch of the U.S. Office of Education's Bureau of Higher Education, served as a general adviser on this survey and also as coauthor of the report. J. Neil Raudabaugh of the U.S. Department of Agriculture was consultant on the activities of the cooperative extension service. Geneva C. Davis played an important role in preparing the data for publication.

The Joint Committee on Data and Definitions of the Association of University Evening Colleges and the National University Extension Association was of major help in resolving policy issues as they emerged. Members of this Committee were Howell W. McGee, Gayle B. Childs, and Phillip E. Frandson, then chairman.

The key to the success of any survey is the respondent. In this case, special thanks must be extended to the persons who served as campus coordinators for this survey. Their role was not limited to reporting data already available in their files. Rather, they often had to search out data on adult or continuing education activities as offered by various parts of their institutions. This sometimes required that they conduct surveys of their own institutions. Their hard work and strong interest made this survey a reality.

Robert Calvert, Jr., Chief  
Adult and Vocational Education  
Surveys Branch

## CONTENTS

	<u>Page</u>
Foreword. . . . .	iii
Introduction. . . . .	1
Extent of Noncredit Activities. . . . .	3
Total Noncredit Refresher Activities in Professional and Technical Occupations . . . . .	7
Registrations . . . . .	7
Institutions. . . . .	11
Noncredit Refresher Activities in Professional and Technical Occupations, by Field . . . . .	15
Registrations . . . . .	15
Institutions. . . . .	17
Noncredit Refresher Activities in Health Service Professional and Technical Occupations. . . . .	19
Registrations . . . . .	19
Institutions. . . . .	22
Noncredit Refresher Activities in Selected Professional and Technical Occupations . . . . .	25
Registrations . . . . .	25
Institutions. . . . .	28
Survey Procedures and Definitions . . . . .	31
 Appendixes:	
A. Statistical Tables. . . . .	35
B. Listing of Refresher Activities in Professional and Technical Occupations Offered by Institutions of Higher Education, 1967-68 . . . . .	55
C. Survey Report Form. . . . .	63

## Charts

	<u>Page</u>
1. Comparative distributions of estimated registrations and of institutions of higher education with noncredit refresher courses in professional and technical occupations, by control and level of institution: United States, 1967-68. . . . .	viii
2. Distribution of noncredit adult education registrations in institutions of higher education, by major category: United States, 1967-68. . . . .	4
3. Distribution of number of institutions of higher education with noncredit adult education activities, by major category: United States, 1967-68. . . . .	4
4. Estimated registrations in noncredit refresher courses in professional and technical occupations in institutions of higher education, by control and level of institution: United States, 1967-68. . . . .	8
5. Distribution of estimated registrations in noncredit refresher courses in professional and technical occupations in institutions of higher education, by control of institution and by field: United States, 1967-68. . . . .	15
6. Distributions of estimated registrations and of institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by control and level of institution: United States, 1967-68. . . . .	19
7. Distributions of estimated registrations and of institutions of higher education with noncredit refresher courses in selected professional and technical occupations, by control and level of institution: United States, 1967-68. . . . .	25

## Text Tables

1. Estimated registrations in noncredit activities and refresher courses in professional and technical occupations in institutions of higher education, by field and by control and level of institution: United States, 1967-68. . . . .	9
2. Percent distributions of estimated registrations in noncredit activities and refresher courses in professional and technical occupations in institutions of higher education, by control and level of institution: United States, 1967-68. . . . .	10
3. Number and percent of institutions of higher education with noncredit activities and refresher courses in professional and technical occupations, by field and by control and level of institution: United States, 1967-68. . . . .	12



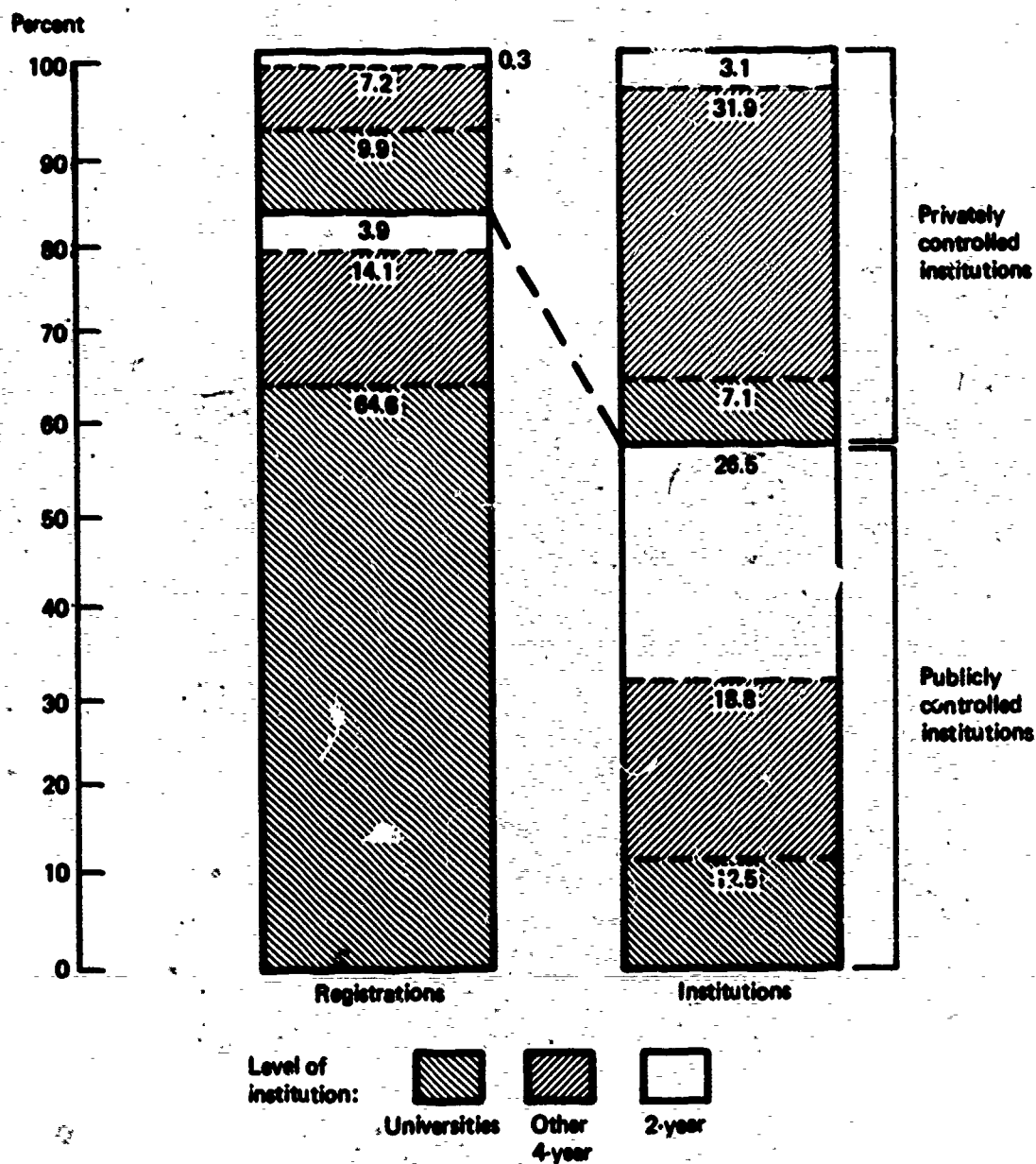
	<u>Page</u>
4. Percent distributions of institutions of higher education reporting noncredit activities and refresher courses in professional and technical occupations, by control and level of institution: United States, 1967-68. . . . .	13
5. Distributions of estimated registrations in institutions of higher education with noncredit refresher courses in professional and technical occupations, by control of institution and by field: United States, 1967-68 . . . . .	16
6. Distributions of institutions of higher education with noncredit refresher courses in professional and technical occupations, by control of institution and by field: United States, 1967-68 . . . . .	18
7. Percent distributions of estimated registrations in institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by control and level of institution and by field: United States, 1967-68. . . . .	21
8. Percent distributions of institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by control of institution and by field: United States, 1967-68. . . . .	23
9. Percent distributions of estimated registrations in noncredit refresher courses in selected professional and technical occupations, by control and level of institution and by field: United States, 1967-68. . . . .	26
10. Percent distributions of institutions of higher education with noncredit refresher courses in selected professional and technical occupations, by control and level of institution and by field: United States, 1967-68 . . . . .	29

#### Appendix Tables

A-1. Estimated registrations and percent distributions of noncredit refresher courses in health service professional and technical occupations in institutions of higher education, by control and level of institution and by field: United States, 1967-68. . . . .	36
A-2. Percent distributions of estimated registrations in noncredit refresher courses in health service professional and technical occupations in publicly and privately controlled institutions of higher education, by level of institution and by field: United States, 1967-68. . . . .	38
A-3. Percent distributions of estimated registrations in noncredit refresher courses in health service professional and technical occupations in universities, other 4-year institutions, and 2-year institutions of higher education, by control of institution and by field: United States, 1967-68 . . . . .	39

	<u>Page</u>
A-4. Number of institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by control and level of institution and by field: United States, 1967-68 . . . . .	40
A-5. Percent distributions of numbers of publicly and privately controlled institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by field: United States, 1967-68 . . . . .	43
A-6. Estimated registrations in noncredit refresher courses in selected professional and technical occupations in institutions of higher education, by control and level of institution and by field: United States, 1967-68 . . . . .	44
A-7. Percent distributions of estimated registrations in noncredit refresher courses in selected professional and technical occupations in institutions of higher education, by control and level of institution and by field: United States, 1967-68 . . . . .	46
A-8. Percent distributions of estimated registrations in noncredit refresher courses in selected professional and technical occupations in publicly and privately controlled institutions of higher education, by level of institution and by field: United States, 1967-68 . . . . .	48
A-9. Percent distributions of estimated registrations in noncredit refresher courses in selected professional and technical occupations in universities, other 4-year institutions, and 2-year institutions of higher education, by control of institution and by field: United States, 1967-68 . . . . .	51
A-10. Number of institutions of higher education with noncredit refresher courses in selected professional and technical occupations, by control and level of institution and by field: United States, 1967-68 . . . . .	52
A-11. Percent distributions of institutions of higher education with noncredit refresher courses in selected professional and technical occupations, by control and level of institution and by field: United States, 1967-68 . . . . .	54

**Chart 1—Comparative distributions of estimated registrations and of institutions of higher education with noncredit refresher courses in professional and technical occupations, by control and level of institution: United States, 1987-88**



Note: Percent details may not add to 100.0 because of rounding.

## INTRODUCTION

The question of obsolescence in knowledge and skill in a professional or technical occupation is receiving increasing attention as rapid increases in new knowledge and changing technology widen the gap between theory and practice.

The professions have a distinctive role in the translation of knowledge into action. The professional makes use of research findings in the planning and execution of new ventures: for example, open-heart surgery, creation of new towns, and development of new structures for the delivery of social services.

Professional occupational development activities provided by colleges and universities bring a dimension of reality to the further education of lawyers, dentists, accountants, engineers, and a host of other occupational specialists. The basic premise underlying such activities is that the refinement of practice and the modification of professional behavior take place when there is a functional relationship between new knowledge and the uses to which it is put. Thus, the emphasis on refresher courses in professional and technical occupations is on the dissemination of information on recent discoveries or latest techniques and their application to job responsibilities.

Although there is no national system of continuing education for professional occupations, there is a trend toward updating requirements for professional recertification or relicensing. For example, the Academy of General Practice of the American Medical Association includes continuing education participation as one of its constitutional requirements for membership.

The growth of continuing education for occupational roles has paralleled, in a sense, the growth of professional schools within institutions of higher education. The increase in occupation-oriented degree programs in the past several decades has been accompanied by an expansion of career refresher opportunities in such fields as health, science, engineering, and management.

Professional associations or organizations cooperate with institutions of higher education in the determination and conduct of continuing education activities, develop courses on their own, and inform their members

of the opportunities that are available. Thus, the on-campus refresher course has been supplemented by the lecture circuit, media presentations (such as closed circuit television), and locally organized seminars and demonstrations.

The information in this report demonstrates the response of institutions of higher education to community and individual needs in this era of rapid technological change. It is based upon OE Form 2300-8, "Selected Adult Education Activities in Institutions of Higher Education, 1967-68," which was included in the Higher Education General Information Survey (HEGIS) package in the spring of 1968. Its purposes were to determine the distribution and magnitude of selected continuing education activities in colleges and universities and to obtain detailed information on professional refresher courses and community development and community service programs. (See appendix C.)—

In Part I--Types of Activities and Registration--of the form, the estimated data were to be reported by type of activity (classes, short courses, etc.) for two categories: degree-credit optional (certain types of recognition other than credit normally used toward a degree or other formal award) and noncredit. These data provided the information for the first two publications in the series based upon this survey. These reports, Noncredit Activities in Institutions of Higher Education, 1967-68: Institutional Distribution and Noncredit Activities in Institutions of Higher Education, 1967-68: Registrations<sup>1/</sup>, explored the distribution of noncredit activities among the institutions and the numbers of registrations in these activities, respectively.

This third publication in the series on noncredit activities conducted in institutions of higher education covers the refresher courses in professional and technical occupations. The data were developed from Part VI--Professional Refresher Courses--of the survey form. The institutions of higher education were asked to list each refresher course by profession along with the estimated registrations. The courses were to be further identified with the sponsoring administrative unit, type of activity, and topic.

As used in this report, the refresher course in professional and technical occupations is defined as study carried on by practicing members of a professional or technical career (dentistry, dental hygiene, engineering, law, medicine, medical technology, office specialists, etc.) as a means of keeping abreast of developments that directly affect their career activities.

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<sup>1/</sup> U.S. Office of Education, OE-13036 and DHEW (OE) 72-13, by Florence B. Kemp, Washington, U.S. Government Printing Office, 1971.



### EXTENT OF NONCREDIT ACTIVITIES

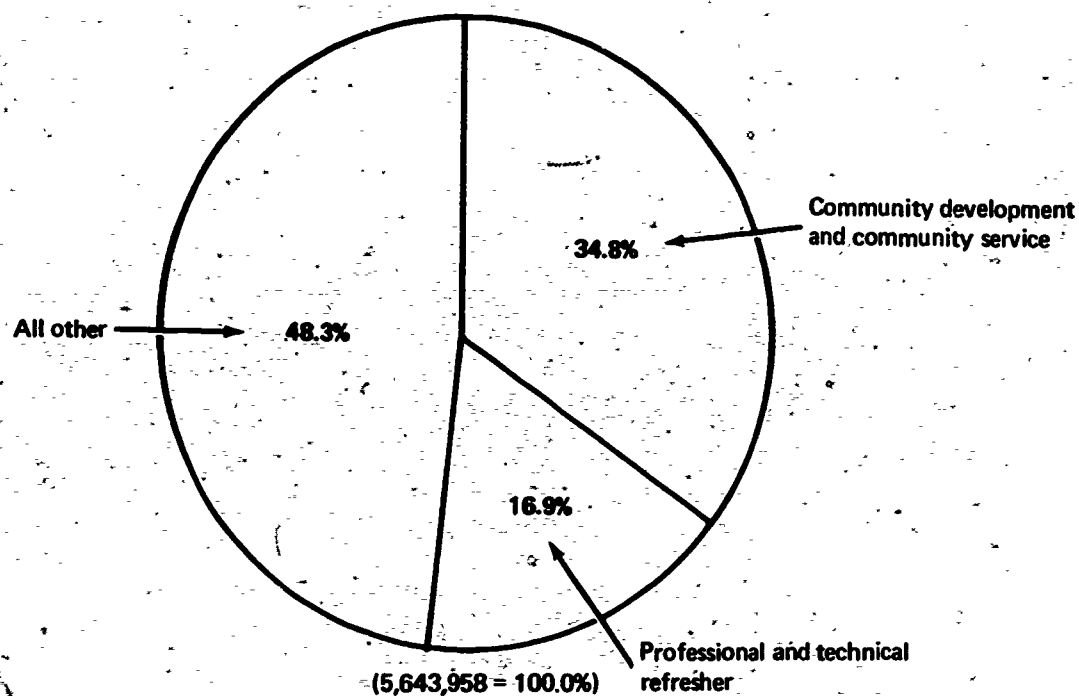
This survey of "Selected Adult Education Activities in Institutions of Higher Education, 1967-68," showed that colleges and universities had over 6.5 million registrations in selected adult education activities. Of this total, 0.9 million were in activities identified as degree-credit optional: creditable but not normally used for credit toward a degree or other formal award. Most of the registrations--over 5.6 million--were in noncredit activities reported by 1,102 institutions.

The registrations reported indicate the total number of persons registered in each activity. Thus, some duplication exists, as an individual could be registered in more than one activity. No attempt was made to determine the number of individual persons (unduplicated count) since institutional recordkeeping procedures usually did not provide this information.

The survey form also requested estimated registration data for two broad categories of adult or continuing education: community development and community service programs (part IV) and professional refresher courses (part VI). More than half of the institutions of higher education with noncredit activities reported courses within these two categories, and registrations in these activities accounted for more than half of the registrations in all noncredit courses. (See charts 2 and 3.)

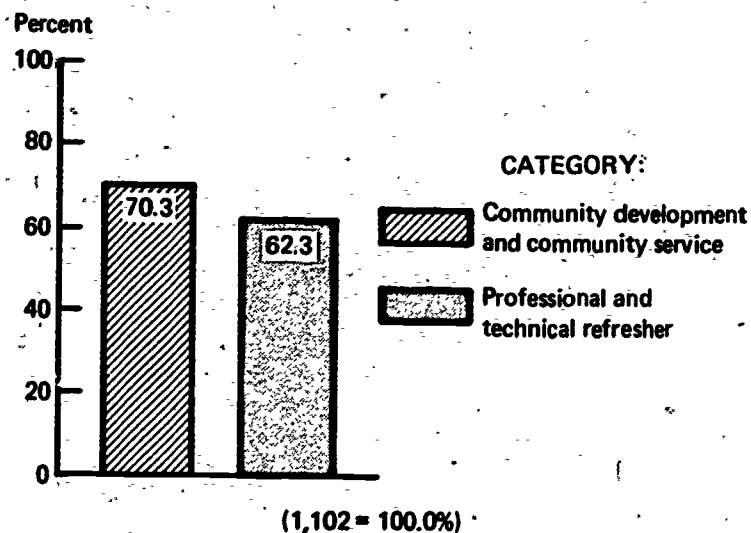
The 1967-68 survey provides data on 94.3 percent of the institutions contacted; the nonresponse rate of 5.7 percent had a negligible effect on the data reported, since most of these institutions were among the smaller and newer institutions. The survey returns are summarized in the following tabulation. Data in this report refer to the United States (50 States and the District of Columbia).

**Chart 2—Distribution of noncredit adult education registrations in institutions of higher education, by major category: United States, 1967-68**



**Chart 3—Distribution of number of institutions of higher education with noncredit adult education activities, by major category: United States, 1967-68**

(Many institutions offer both refresher and community development activities; therefore, the number of institutions with these activities is not additive.)



<u>Surveyed institutions</u>	<u>Number</u>	<u>Percent</u>
Total	<u>1/ 2,336</u>	<u>100.0</u>
Respondents	<u>2,202</u>	<u>94.3</u>
Reporting no adult education	979	41.9
Reporting adult education activities	<u>1,223</u>	<u>52.4</u>
Noncredit activities	<u>1,102</u>	<u>47.2</u>
Noncredit activities only	611	26.2
Noncredit and degree-credit optional	<u>491</u>	<u>21.0</u>
Degree-credit optional only	<u>121</u>	<u>5.2</u>
Nonrespondents	<u>134</u>	<u>5.7</u>

Special programs offering refresher courses in professional and technical occupations (see Survey Procedures and Definitions for further discussion) were among the activities commonly underreported. These are generally short-term noncredit activities and frequently include those that may be cosponsored with professional and technical associations and with business and industry. They may involve one or many organizational units within an institution and relate to data that are not normally collected by campus administrators.

Data from a related U.S. Office of Education publication, Participation in Adult Education, 1969, Initial Report<sup>2/</sup>, also show that institutions of higher education are an important source of instruction for continuing education activities. They were among the three leading sources of instruction, accounting for 25.2 percent of the total participants (unduplicated count) in adult education. The other major channels of these activities were public and private schools (27.7 percent) and on-the-job training (27.5 percent).

This publication analyzes noncredit refresher courses for professional and technical occupations by control (public, private) and level (university, other 4-year, 2-year) of institution.

<sup>1/</sup> The survey form used in collecting these data was mailed with the Higher Education General Information Survey to all institutions in the higher education universe in the fall of 1968. Since the data requested refer to the school year 1967-68, coverage was adjusted to the fall 1967 universe of 2,367 institutions. By the time of reporting, however, 31 institutions had merged with other schools. These reports were combined to show a universe of 2,336 institutions. Excluded were U.S. Service Schools and institutions in outlying areas (Canal Zone, Guam, Puerto Rico, and Virgin Islands).

<sup>2/</sup> OE No. 72-1, by Imogene E. Okes, Washington, U.S. Government Printing Office, 1971.

In addition, these professional and technical refresher courses are further distributed between two categories: health and nonhealth occupations, the latter referred to in this report as selected occupations. The health occupations are readily identifiable and represent an area that traditionally has been analyzed.

As the distinction between these fields is used frequently in this report, a list of components follows:

#### Health Service Professional and Technical Occupations

Chiropody or podiatry	Optometry
Dental hygiene	Osteopathy
Dentistry	Pharmacy
Hospital administration	Public health
Medical technology	Radiologic technology
Medicine	Veterinary medicine
Nursing	Other
Occupational and physical therapy	

#### Selected Professional and Technical Occupations (Except health service specialties)

Accounting	Library science
Courses	Labor union - administrative or
Review courses	supervisory
Agriculture and forestry	Management
Architecture	Natural and physical sciences
Clinical psychology	Personnel and public relations
Computer science	Real estate and insurance
Education - teaching, counsel-	Courses
ing and guidance	Review courses
Engineering	Secretarial studies
Courses	Social work
Review courses	Stock market and investments
Finance and banking	Theology
Government	Other
Home economics	
Journalism and the arts	
Law	
Courses	
Review courses	

## TOTAL NONCREDIT REFRESHER ACTIVITIES IN PROFESSIONAL AND TECHNICAL OCCUPATIONS

### Registrations

Noncredit refresher courses are offered by publicly and privately controlled institutions of higher education at all levels (universities, other 4-year, and 2-year institutions). Chart 4 and table 1 present registration data for 1967-68. Of the 955,786 noncredit registrations in such refresher activities, 17.9 percent were in the health fields and 82.1 percent in selected occupations.

In the health fields, the public sector accounted for 76.5 percent of the 170,657 total registrations. For selected occupations, the publicly controlled institutions reported 658,557 registrations, or 83.9 percent of the total. By both control and type of institution, most refresher activities were concentrated in public universities, where 64.6 percent of these registrations were reported. Almost three out of four registrations were in universities and over 4 out of 5 were in the public sector. The private sector had a higher proportion (17.4 percent) of professional and technical registrations than of total noncredit registrations (13.6 percent).

Universities accounted for about the same percentage of both the total noncredit registrations and noncredit refresher registrations, 73.6 percent and 74.5 percent, respectively. The other 4-year institutions had 12.4 percent of the total noncredit registrations and 21.3 percent of the noncredit refresher registrations. This contrasted with 2-year institutions, which accounted for 14.0 percent and 4.2 percent of the noncredit and refresher registrations, respectively.

In the public sector, the other 4-year institutions had 8.0 percent of the total registrations in noncredit activities, compared with 17.0 percent of the total in refresher activities. In the private sector, however, the other 4-year institutions accounted for about the same percent of total registrations in each distribution, 40.6 percent and 41.5 percent, respectively. (See table 2.) Over 90 percent of the total noncredit and the noncredit refresher registrations for the 2-year institutions were in the public sector. Among all public institutions, 15 of 100 registrations in noncredit activities were in 2-year colleges. This compares with approximately 5 out of 100 registrations in refresher courses.

In both public and private institutions, level appears to be a significant factor in number of registrations. Registrations in refresher activities, ranked in order of magnitude, were: universities, other 4-year, and



**Chart 4—Estimated registrations in noncredit refresher courses in professional and technical occupations in institutions of higher education, by control and level of institution:  
United States, 1967-68**

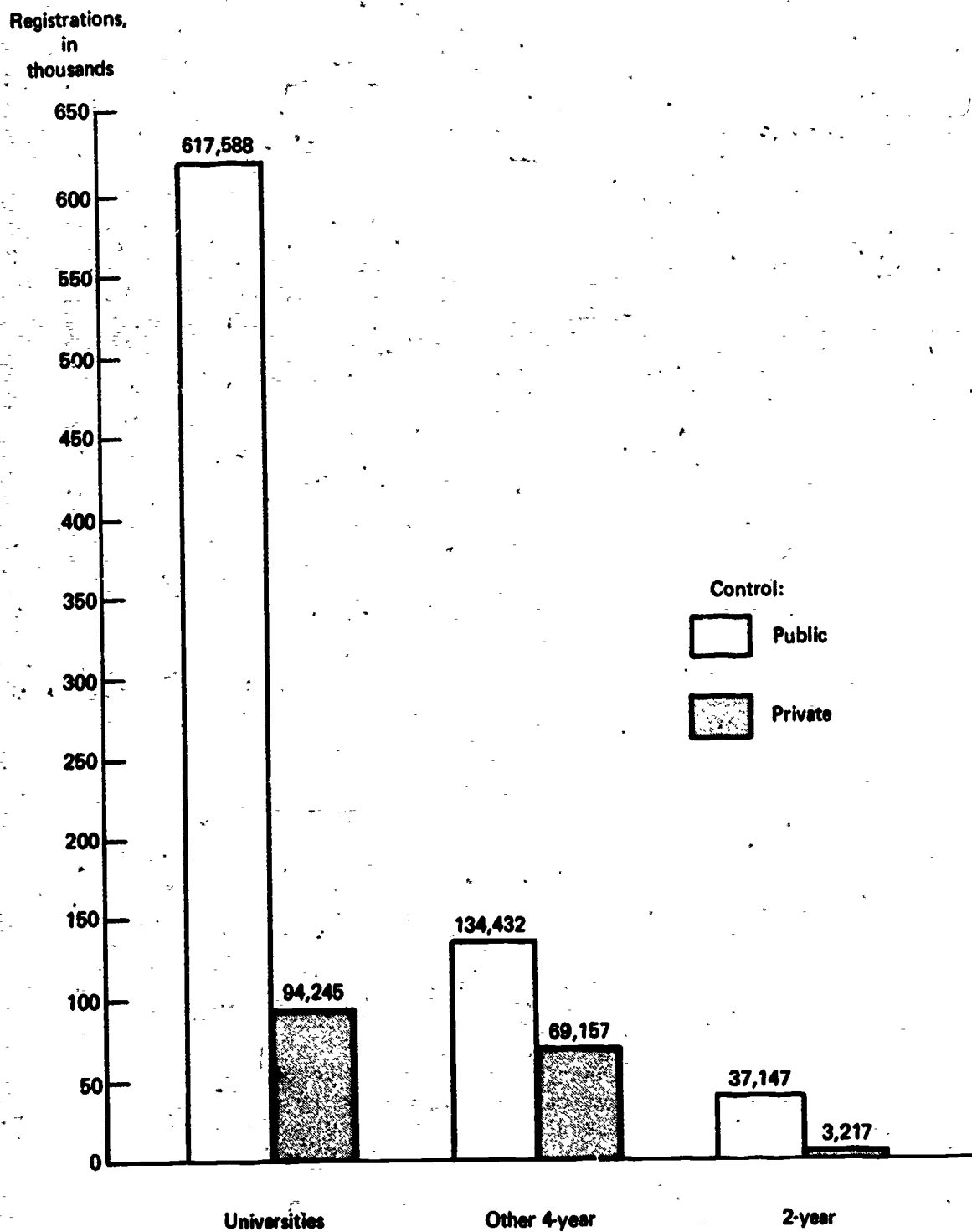


Table 1.--Estimated registrations in noncredit activities and refresher courses in professional and technical occupations in institutions of higher education, by field and by control and level of institution: United States, 1967-68

Level of institution	Number of registrations in--				Percent distributions of registrations in--						
	Refresher courses, professional and technical occupations				Refresher courses, professional and technical occupations				Total refresher courses, professional and technical occupations		
	Total noncredit activities	Total	Health service	Selected (except health service)	Total noncredit activities	Total	Health service	Selected (except health service)	Total	Health service	Selected (except health service)
In all institutions											
Total	5,643,958	955,786	170,657	785,129	100.0	100.0	100.0	100.0	100.0	17.9	82.1
Universities	4,153,848	711,833	140,635	571,198	73.6	74.5	82.4	72.8	100.0	19.8	80.2
Other 4-year	702,031	203,589	27,335	176,254	12.4	21.3	16.0	22.4	100.0	13.4	86.6
2-year	788,079	40,364	2,687	37,677	14.0	4.2	1.6	4.8	100.0	6.7	93.3
In publicly controlled institutions											
Total	4,877,297	789,167	130,610	658,557	86.4	82.6	76.5	83.9	100.0	16.6	83.4
Universities	3,754,580	617,588	117,126	500,462	66.5	64.6	68.6	63.7	100.0	19.0	81.0
Other 4-year	390,948	134,432	11,135	123,297	6.9	14.1	6.5	15.7	100.0	8.3	91.7
2-year	731,769	37,147	2,349	34,798	13.0	3.9	1.4	4.4	100.0	6.3	93.7
In privately controlled institutions											
Total	766,661	166,619	40,047	126,572	13.6	17.4	23.5	16.1	100.0	24.0	76.0
Universities	399,268	94,245	23,509	70,736	7.1	9.9	13.8	9.0	100.0	24.9	75.1
Other 4-year	311,083	69,157	16,200	52,957	5.5	7.2	9.5	6.7	100.0	23.4	76.6
2-year	56,310	3,217	338	2,879	1.0	.3	.2	.4	100.0	10.5	89.5

Note.--Percent details may not add to totals shown because of rounding.

2-year institutions. For example, universities accounted for 72.8 percent of such registrations in the selected occupations, and 2-year institutions only 4.8 percent.

In addition, there was a positive correlation between size of institution and relative registrations in noncredit adult or continuing education activities. Thus, institutions with "regular" student enrollment of 20,000 or over reported more than one-half of the total noncredit registrations.<sup>1/</sup>

Information on type of institution sponsoring professional and technical registrations appears in table 2.

Table 2.--Percent distributions of estimated registrations in noncredit activities and refresher courses in professional and technical occupations in institutions of higher education, by control and level of institution: United States, 1967-68

Level of institution	Total	Control of institution		Total	Control of institution	
		Public	Private		Public	Private
<u>Total noncredit registrations</u>						
All institutions	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	86.4	13.6
Universities	73.6	77.0	52.1	<u>100.0</u>	90.4	9.6
Other 4-year	12.4	8.0	40.6	<u>100.0</u>	55.7	44.3
2-year	14.0	15.0	7.3	<u>100.0</u>	92.9	7.1
<u>Registrations in professional and technical occupations</u>						
All institutions	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	82.6	17.4
Universities	74.5	78.3	56.6	<u>100.0</u>	86.8	13.2
Other 4-year	21.3	17.0	41.5	<u>100.0</u>	66.0	34.0
2-year	4.2	4.7	1.9	<u>100.0</u>	92.0	8.0

<sup>1/</sup>U.S. Office of Education, Noncredit Activities in Institutions of Higher Education: Registrations, 1967-68, OE No. 72-13, by Florence B. Kemp, Washington, U.S. Government Printing Office, 1971.

### Institutions

The participation of institutions of higher education in noncredit refresher activities in the professional and technical occupations indicates an awareness of the need to provide opportunities to update knowledge and skills. The more than 5.6 million noncredit registrations were distributed among the 1,102 institutions out of a universe of 2,336. The nearly 1 million registrations in the professional and technical occupational refresher activities were in 686 of the 1,102 institutions with noncredit activities.

Of these 686 institutions, 618 or 90.1 percent had courses in selected occupations, whereas only 216 or 31.5 percent had refresher courses in health fields. Further details appear in table 3.

Approximately half (47.2 percent) of the 2,336 institutions in the survey universe sponsored noncredit activities; 62.3 percent of these 1,102 institutions had refresher activities in the professional and technical occupations. Public universities had the highest rate of participation, 94.5 percent; 86 of the 91 universities had refresher courses.

Publicly controlled other 4-year institutions had a much higher rate of participation than did similar private institutions. The 2-year institutions participated strongly in refresher activities--50.4 percent in the public sector (182 of 361 with noncredit activities) and 34.4 percent in the private sector (21 of 61).

Table 4 presents percentage distributions of the institutions with noncredit activities and the institutions with refresher courses in the professional and technical occupations. These distributions also demonstrate that institutions in the public sector were more heavily involved in both the noncredit and refresher activities in the professional and technical occupations.

Table 3.--Number and percent of institutions of higher education with noncredit activities and refresher courses in professional and technical occupations, by field and by control and level of institution: United States, 1967-68

Level of institution	Number of institutions with--				Percent of total institutions with--				As percent of total professional and technical occupational refresher courses in--			
	Refresher courses, professional and technical occupations				Refresher courses, professional and technical occupations				Refresher courses in--			
	Total noncredit activities	Total 1/	Health service	Selected (except health service)	Total noncredit activities	Total 1/	Health service	Selected (except health service)	Total 1/	Health service	Selected except health service)	
In all institutions												
Total	1,102	636	216	618	100.0	100.0	100.0	100.0	100.0	31.5	90.1	
Universities	146	135	106	127	13.2	19.7	49.1	20.6	78.5	94.1		
Other 4-year	534	348	55	319	48.5	50.7	25.5	51.6	100.0	15.8	91.7	
2-year	422	203	55	172	38.3	29.6	25.5	27.8	100.0	27.1	84.7	
In publicly controlled institutions												
Total	621	327	132	362	56.4	57.2	64.4	58.6	100.0	31.0	91.2	
Universities	91	86	60	84	8.3	12.5	27.8	13.8	100.0	69.8	97.7	
Other 4-year	169	129	27	124	15.3	18.8	12.5	20.5	100.0	20.9	96.1	
2-year	361	182	52	154	32.8	26.5	24.1	24.1	100.0	28.6	84.6	
In privately controlled institutions												
Total	481	289	77	256	43.6	42.1	35.6	41.4	100.0	26.5	88.6	
Universities	55	49	46	43	5.0	7.1	21.3	7.0	100.0	93.9	87.8	
Other 4-year	365	219	28	195	33.1	31.9	13.0	31.6	100.0	12.8	89.0	
2-year	61	21	3	18	5.5	3.1	1.4	2.9	100.0	14.3	85.7	

1/The sum of health service and selected courses may exceed total numbers of institutions offering them because many institutions reported courses in both fields.

Note.--Percent details may not add to totals shown because of rounding.



Table 4.--Percent distributions of institutions of higher education reporting noncredit activities and refresher courses in professional and technical occupations, by control and level of institution: United States, 1967-68

Level of institution	Control of institution		Control of institution	
	Total	Public	Private	Total
All institutions	Percent of total with registrations in noncredit activities		Percent of total with registrations in noncredit activities, each level	
	100.0	56.4	43.6	100.0
	13.2	8.3	5.0	100.0
	48.5	15.3	33.1	100.0
	38.3	32.8	5.5	100.0
All institutions	Percent of total with registrations in refresher courses in the professional and technical occupations		Percent of total with registrations in refresher courses in the professional and technical occupations, each level	
	100.0	57.2	42.1	100.0
	19.7	12.5	7.1	100.0
	50.7	18.8	31.9	100.0
	29.6	26.5	3.1	100.0
All institutions	Percent with registrations in noncredit activities		Percent with registrations in refresher courses in professional and technical occupations	
	100.0	100.0	100.0	100.0
	13.2	14.7	11.4	19.7
	48.5	27.2	75.9	50.7
	38.3	58.1	12.7	29.6

Note.--Percent details may not add to totals shown because of rounding.

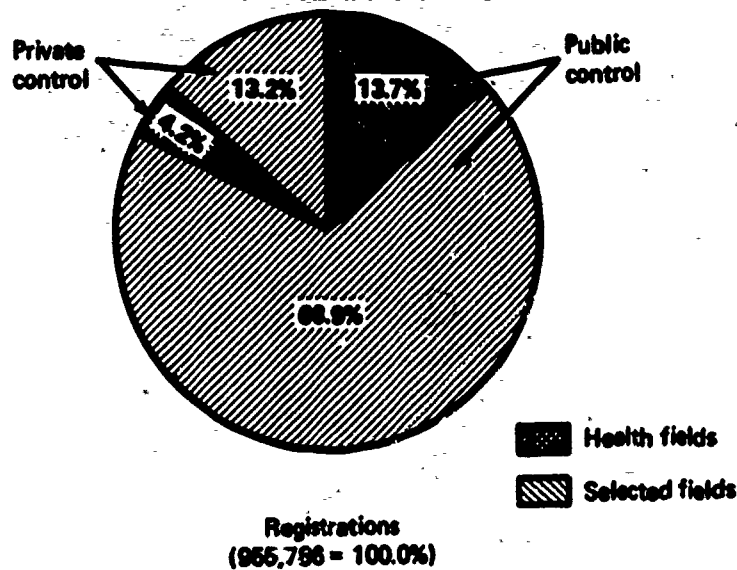
## NONCREDIT REFRESHER ACTIVITIES IN PROFESSIONAL AND TECHNICAL OCCUPATIONS, BY FIELD

### Registrations

The 1967-68 total estimated registrations of 955,786 in institutions of higher education are distributed between the health fields and selected fields by control of institution in chart 5, and registrations in these refresher courses in each of the professional and technical fields are ranked in descending order of magnitude in table 5.

The scope of the activity is wide and indicates a response, even though a limited one, to new technologies such as medical technology, radiologic technology, public health, etc. The sample list of courses presented in appendix B further reveals the responsiveness of the institutions of higher education to emerging needs.

Chart 5—Distribution of estimated registrations in noncredit refresher courses in professional and technical occupations in institutions of higher education, by control of institution and by field: United States, 1967-68



Courses in education rank at the top, accounting for 3 out of 10 of the total registrations. Historically, professional advancement and even salary levels in the educational professions have been linked with continuing education.

Table 5.--Distributions of estimated registrations in institutions of higher education with noncredit refresher courses in professional and technical occupations, by control of institution and by field: United States, 1967-68

Field	Number of registrations			Rank		
	Total	Control of institution		Total	Control of institution	
		Public	Private		Public	Private
Education	285,672	256,557	29,115	1	1	1
Engineering	84,730	69,368	15,362	2	2	5
Law	77,594	64,592	13,002	3	3	6
Medicine	75,512	55,066	20,446	4	5	2
Management	71,778	55,841	15,937	5	4	4
Natural and physical science	39,482	36,395	3,087	6	6	11
Real estate and insurance	30,269	24,144	6,125	7	8	7
Nursing	27,974	25,170	2,804	8	7	12
Agriculture and forestry	24,278	23,771	507	9	9	31
Theology	22,781	3,547	19,234	10	24	3
Journalism and the arts	21,390	19,625	1,765	11	10	19
Stock market and investments	19,828	17,856	1,972	12	11	17
Dentistry	18,785	13,628	5,157	13	12	8
Secretarial studies	14,893	12,465	2,428	14	15	13
Social work	14,417	12,469	1,948	15	14	18
Pharmacy	13,969	9,623	4,346	16	17	10
Clinical psychology	13,731	12,474	1,257	17	13	20
Accounting	13,127	8,612	4,515	18	18	9
Other (health-related fields)	13,060	11,902	1,158	19	16	22
Finance and banking	9,949	7,700	2,249	20	19	14
Home economics	9,644	7,556	2,088	21	20	15
Library science	6,919	6,217	702	22	21	30
Government	6,271	5,342	929	23	22	26
Veterinary medicine	5,937	5,127	810	24	23	29
Labor union	5,076	3,070	2,006	25	28	16
Hospital administration	4,424	3,397	1,027	26	25	23
Architecture	4,249	3,327	922	27	27	27
Personnel and public relations	3,696	3,380	316	28	26	33
Computer science	3,507	2,487	1,020	29	30	24
Medical technology	3,344	3,056	288	30	29	35
Optometry	2,258	1,097	1,161	31	32	21
Public health	2,053	1,062	991	32	33	25
Other (selected fields)	1,848	1,762	86	33	31	37
Chiropractic or podiatry	948	58	890	34	38	28
Occupational and physical therapy	790	390	400	35	36	32
Dental hygiene	787	475	312	36	34	34
Radiologic technology	459	459	--	37	35	--
Osteopathy	357	100	257	38	37	36

Other areas in which incentives exist, either through legislative requirements for continuing education or professional recognition, are engineering, law, medicine, osteopathy, etc. Rapid changes in technology in business operations have acted to stimulate registrations in management courses. The broad range of courses reflects the awareness of the professional and paraprofessional of the need to update skills.

There is a strong similarity in registration ranking of the five leading professional and technical fields in both public and private institutions of higher education, with a notable exception. In private institutions law takes sixth place and theology moves up to third place.

Anomalies revealed by the data are best explained through an understanding of the sources of education in particular areas. For example, forestry and agriculture are the historic domain of land-grant institutions (public sector). Theology, however, is historically associated with many of the Nation's leading private institutions. It is then readily understood why over 98 percent of the registrations in forestry and agriculture are in the public sector and almost 85 percent of the registrations in theology are in the private sector.

### Institutions

Over half of the institutions in the public sector and more than 40.0 percent in the private sector reported refresher activities in professional and technical fields (table 3). Shown in rank order by field are numbers of institutions with these activities. (See table 6.) Education leads in number of institutions with refresher activities (312 out of 686). Management, engineering, and real estate and insurance also rank among the top five in both publicly and privately controlled institutions. Nursing ranks fourth in the public sector but shifts to ninth in the private sector, whereas theology ranks 24th in the public sector but moves up to second position in the private sector.

Medicine and law are noticeably absent from top-ranking positions because of the relatively small number of medical and law schools in the institutional universe.

Table 6.--Distributions of institutions of higher education with noncredit refresher courses in professional and technical occupations, by control of institution and by field: United States, 1967-68

Field	Number of institutions with course in field			Rank		
	Total	Control		Total	Control of institution	
		Public	Private		Public	Private
Education	312	200	112	1	1	1
Management	166	104	62	2	3	3
Engineering	156	115	41	3	2	4
Real estate and insurance	111	74	37	4	5	5
Nursing	106	86	20	5	4	9
Theology	96	19	77	6	24	2
Stock market and investments	80	67	13	7	6	16
Accounting	72	44	28	8	9	6
Secretarial studies	70	54	16	9	7	11
Natural and physical science	70	47	23	9	8	7
Law	63	42	21	11	11	8
Finance and banking	58	43	15	12	10	13
Journalism and the arts	56	42	14	13	11	14
Medicine	54	38	16	14	13	11
Pharmacy	48	31	17	15	15	10
Dentistry	41	29	12	16	16	18
Hospital administration	39	26	13	17	18	16
Agriculture and forestry	36	34	2	18	14	35
Computer science	36	22	14	18	21	14
Government	35	28	7	20	17	22
Social work	32	22	10	21	21	19
Clinical psychology	30	21	9	22	23	20
Home economics	29	25	4	23	19	28
Personnel and public relations	29	24	5	23	20	24
Library science	28	19	9	25	24	20
Veterinary medicine	21	19	2	26	24	35
Architecture	20	15	5	27	27	24
Medical technology	18	14	4	28	28	28
Dental hygiene	16	13	3	29	30	30
Other (health-related fields)	16	14	2	29	28	35
Optometry	14	9	5	31	31	24
Other (selected fields)	13	8	5	32	32	24
Labor union	12	5	7	33	34	22
Occupation and physical therapy	10	7	3	34	33	30
Public health	7	4	3	35	35	30
Chiropody or podiatry	4	1	3	36	37	30
Osteopathy	4	1	3	36	37	30
Radiologic technology	2	2	--	38	36	-



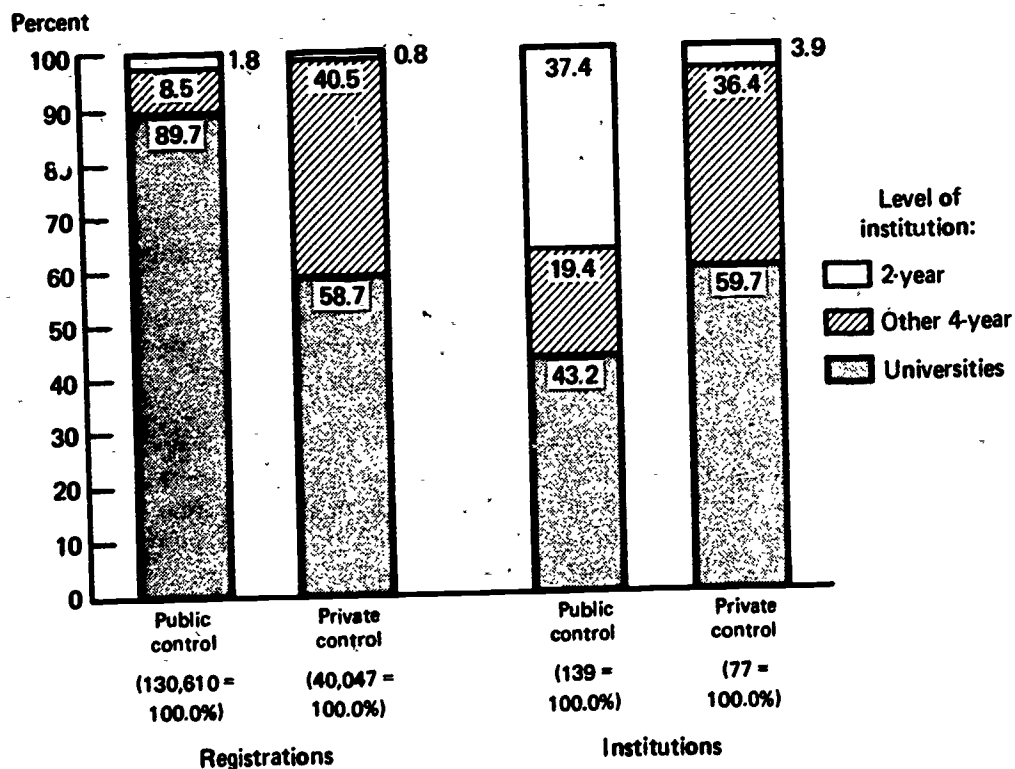
# **NONCREDIT REFRESHER ACTIVITIES IN HEALTH SERVICE PROFESSIONAL AND TECHNICAL OCCUPATIONS**

## Registrations

Chart 6 shows distributions within the public and private sectors of the estimated registrations in, and institutions of higher education offering, noncredit refresher courses in the health service professional and technical occupations, by level of institution. Details by specific health field follow.

Reported registrations in medicine neared 45 percent of the total registrations in the health fields in 1967-68. The next most active were nursing, dentistry, and pharmacy. By contrast, medical technology accounted for only 2.0 percent of the total registrations reported by 215 institutions of higher education with refresher activities in the health fields.

**Chart 6—Distributions of estimated registrations and of institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by control and level of institution: United States, 1967-68**



In the field of medicine, refresher courses were offered in a wide range of specialties: urology, surgery, obstetrics and gynecology, pediatrics, and dermatology. Courses were reported in specific diseases, such as cancer, diabetes, and arthritis, as well as in the diagnosis and treatment of rheumatic diseases. Health care courses for special populations such as the aging and students were also indicated by colleges and universities. Dentists were enrolled for courses in preventive orthodontics, oral pathology, and X-ray techniques. Courses were also offered in new dental procedures and in management of dental practice. As in medicine, there were refresher courses in dentistry for children and care for the aging patient.

Registrations in nursing numbered 27,974, or 16.4 percent of total registrations reported in health service occupations. The estimated number of registrations in dentistry was 18,785 (11.0 percent). Registrations in dental hygiene courses, however, numbered 787 (0.5 percent). Pharmacy course registrations totaled 13,969 (8.2 percent). Thus, the long-established health professions of medicine, nursing, and dentistry accounted for 71.6 percent of registrations reported in the health service professional and technical occupations. In the newer disciplines or fields such as hospital administration and physical therapy, relatively small numbers of participants were recorded.

In nursing there was considerable emphasis, in the courses reported, on preparing individuals for reentry into the profession. The nurse as supervisor also was reported frequently. In addition, nurses were enrolled in such areas as nutrition, diabetes, clinical practice, and neurosurgical care. Courses for pharmacists included antibiotics, drug therapy, aerosol technology, and "role" conferences in medical care and mental health. Hospital administrators attended courses focused on ward management, control systems, and the administration of long-term care facilities. Among the opportunities for continuing education in public health were: comprehensive health planning, ambulatory care service, student health, and family planning in an urban society.

The "other" health courses were designed to appeal to practitioners in more than one of the health fields and attracted 13,060 registrations, which accounted for 7.7 percent of total registrations.

Consonant with the concentration of registrations in the longer established health professions, refresher activities were centered in the universities, where 82.4 percent of all registrations were reported. Two-year institutions, by contrast, recorded only 1.6 percent of total registrations in health-related areas.

Further details of the distributions of these estimated registrations by control and level of institution are shown in table 7 and appendix A, tables A-1, A-2, and A-3.

Table 7.--Percent distributions of estimated registrations in institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by control and level of institution and by field: United States, 1967-68

Field	Registrations		Percent of total registrations, each field				
	Number	Percent of total	By control of institution		By level of institution		
			Public	Private	Universities	Other 4-year	2-year
Total	170,657	100.0	76.5	23.5	82.4	16.0	1.6
Chiropractic or podiatry	948	.6	6.1	93.9	6.1	93.9	--
Dental hygiene	787	.5	60.4	39.6	75.6	7.8	16.6
Dentistry	18,785	11.0	72.5	27.5	94.9	5.1	--
Hospital administration	4,424	2.6	76.8	23.2	80.4	13.1	6.5
Medical technology	3,344	2.0	91.4	8.6	75.6	20.4	4.0
Medicine	75,512	44.2	72.9	27.1	78.0	22.0	--
Nursing	27,974	16.4	90.0	10.0	86.0	7.3	6.7
Occupational and physical therapy	790	.5	49.4	50.6	50.6	49.4	--
Optometry	2,258	1.3	48.6	51.4	38.4	61.6	--
Osteopathy	357	.2	28.0	72.0	--	100.0	--
Pharmacy	13,969	8.2	68.9	31.1	77.5	22.5	--
Public health	2,053	1.2	51.7	48.3	100.0	--	--
Radiologic technology	459	.3	100.0	--	98.0	2.0	--
Veterinary medicine	5,937	3.5	86.4	13.6	99.0	1.0	--
Other	13,060	7.7	91.1	8.9	97.1	1.0	2.0

Note.--Percent details may not add to 100.0 because of rounding.

### Institutions

Of the 216 institutions of higher education which offer professional refresher courses for physicians, nurses, dentists, and a host of other health specialists, 139 (64.4 percent) were under public control; 77 (35.6 percent), under private control. Together they constituted 19.6 percent of all institutions reporting noncredit activities for adult students in 1967-68.

The nursing profession was served by more institutions (106) than any other occupational group in the health-related areas. Of these institutions, 81.1 percent were publicly controlled; 18.9 percent, privately controlled.

The next largest number of institutions (54) reported courses in medicine, closely followed by 48 institutions reporting refresher activities for pharmacists and 41 for dentists. The smallest number of institutions (two) reported courses in radiologic technology, while four institutions indicated refresher courses in chiropractic or podiatry and in osteopathy.

Courses for the continuing professional development of hospital administrators were provided by 39 institutions of higher education. Percent distributions of numbers of institutions with health service professional and technical occupational refresher courses, by field and by control of institution, are shown in table 8.

There has been vigorous activity on the part of professional associations--particularly in medicine, dentistry, pharmacy, and hospital administration--for continuing education. Although data used in this report do not permit analysis of relationships between such associations and institutions of higher education in the conduct of professional refresher offerings, follow-up procedures used in the survey indicate that they cooperate in the determination and scheduling of some of the courses. This connection between the professional association and the institution is underscored by the requirements of certain associations that "continuing education credit" may be obtained through "university-sponsored courses."

For most health-related areas of continuing study, the majority of institutions offering noncredit refresher work were publicly controlled. The participation rate for public institutions ranged from 57.1 percent to 100.0 percent for all areas except two. For the professions of chiropractic or podiatry and of osteopathy, three of the four reporting institutions were under private control.

Sixteen institutions, largely publicly controlled, reported courses prepared for members of several of the health service specialties. These courses were usually problem oriented. Featured were refresher activities in drug experimentation, emergency treatment, health of the school child, and the patient and his family.

Further details on the characteristics of the distribution of these activities among the 216 institutions may be found in appendix A, tables A-4 and A-5.

Table 8.--Percent distributions of institutions of higher education with non-credit refresher courses in health service professional and technical occupations, by control of institution and by field: United States, 1967-68

Field	Number of institutions	Percent with course in field, by control	
		Public	Private
Total	<u>1/ 216</u>	<u>64.4</u>	<u>35.6</u>
Chiropody or podiatry	4	25.0	75.0
Dental hygiene	16	81.2	18.8
Dentistry	41	70.7	29.3
Hospital administration	39	66.7	33.3
Medical technology	18	77.8	22.2
Medicine	54	70.4	29.6
Nursing	106	81.1	18.9
Occupational and physical therapy	10	70.0	30.0
Optometry	14	64.3	35.7
Osteopathy	4	25.0	75.0
Pharmacy	48	64.6	35.4
Public health	7	57.1	42.9
Radiologic technology	2	100.0	--
Veterinary medicine	21	90.5	9.5
Other	16	87.5	12.5

1/Details exceed total number of institutions because many institutions reported courses in more than one field.

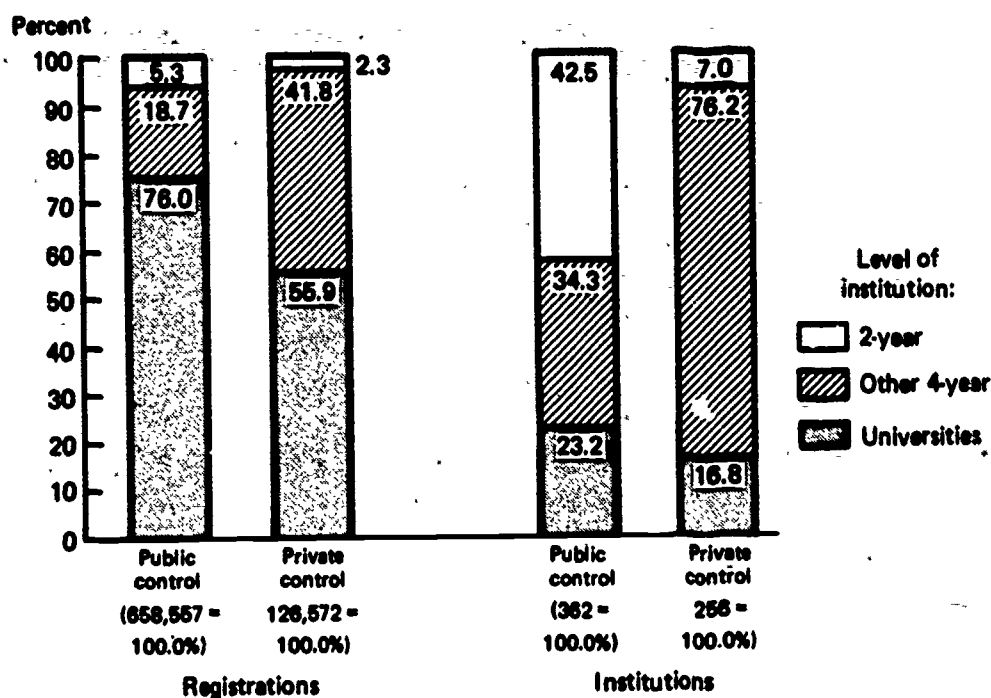
# **NONCREDIT REFRESHER ACTIVITIES IN SELECTED PROFESSIONAL AND TECHNICAL OCCUPATIONS**

## **Registrations**

The distributions in chart 7 show, by level of institution, the estimated registrations in institutions of higher education and the institutions sponsoring noncredit refresher courses in selected professional and technical occupations. A discussion of these distributions, by special field, follows.

**Chart 7—Distributions of estimated registrations and of institutions of higher education with noncredit refresher courses in selected professional and technical occupations, by control and level of institutions: United States, 1967-68**

(Except health service specialties)



Education professionals in 1967-68 accounted for 36.4 percent of the 785,129 reported registrations in selected occupations. Next were engineering (10.8 percent), law (9.9 percent), management (9.1 percent), and natural and physical sciences (5.0 percent), as shown in table 9.

Continuing education offerings for teachers were often directed to the improvement of instruction at both the elementary and the secondary levels. Included were sessions dealing with the social science curriculum, high school physics, industrial arts, and modern mathematics. Speech and hearing, linguistics, musicology, and the integration of the physical sciences were other areas reported by colleges and universities. Some examples of courses related to methods and techniques of instruction



Table 9.--Percent distributions of estimated registrations in noncredit refresher courses in selected professional and technical occupations, by control and level of institution and by field: United States, 1967-68

(Except health service specialties)							
Field	Registrations		Percent of total number, each field				
	Number	Percent of total	Control of institution		Level of institution		
			Public	Private	Universities	Other 4-year	2-year
Total	785,129	100.0	83.9	16.1	72.8	22.4	4.8
Accounting	13,127	1.7	65.6	34.4	61.0	32.2	6.9
Courses	10,675	1.4	70.1	29.9	57.2	35.7	7.0
Review courses	2,452	.3	46.2	53.8	77.2	16.6	6.2
Agriculture and forestry	24,278	3.1	97.9	2.1	93.1	6.1	.8
Architecture	4,249	.5	78.3	21.7	95.5	2.5	2.0
Clinical psychology	13,731	1.7	90.8	9.2	90.6	8.2	1.1
Computer science	3,507	.4	70.9	29.1	82.7	15.4	1.9
Education - teaching, counseling and guidance	285,672	36.4	89.8	10.2	61.1	34.4	4.5
Engineering	84,730	10.8	81.9	18.1	78.6	19.4	2.0
Courses	79,619	10.1	81.7	18.3	79.9	18.8	1.3
Review courses	5,111	.7	85.0	15.0	58.8	27.6	13.6
Finance and banking	9,949	1.3	77.4	22.6	85.7	9.3	5.0
Government	6,271	.8	85.2	14.8	82.3	17.5	.2
Home economics	9,644	1.2	78.3	21.7	89.2	10.2	.5
Journalism and the arts	21,390	2.7	91.7	8.3	76.8	20.6	2.6
Law	77,594	9.9	83.2	16.8	96.1	1.5	2.4
Courses	76,659	9.8	83.3	16.7	96.1	1.4	2.5
Review courses	935	.1	80.5	19.5	93.6	6.4	--
Library science	6,919	.9	89.9	10.1	63.1	36.6	.2
Labor union - administrative or supervisory	5,076	.6	60.5	39.5	80.8	18.7	.4
Management	71,778	9.1	77.8	22.2	80.6	15.8	3.6
Natural and physical sciences	39,482	5.0	92.2	7.8	86.1	13.1	.8
Personnel and public relations	3,696	.5	91.5	8.5	66.2	30.2	3.6
Real estate and insurance	30,269	3.9	79.8	20.2	59.9	20.7	19.4
Courses	26,867	3.4	83.3	16.7	60.0	19.8	20.1
Review courses	3,402	.4	51.8	48.2	58.6	27.6	13.8
Secretarial studies	14,893	1.9	83.7	16.3	53.5	17.3	29.2
Social work	14,417	1.8	86.5	13.5	88.1	11.9	(1/)
Stock market and investments	19,828	2.5	90.1	9.9	67.2	7.6	25.2
Theology	22,781	2.9	15.6	84.4	45.7	53.0	1.3
Other	1,848	.2	95.3	4.7	79.6	16.0	4.4

1/ Less than 0.05.

Note.--Percent details may not add to 100.0 because of rounding.

were use of film as a living art, use of current news media as a teaching aid, and methods and materials in classroom speech improvement. The general area of educational administration was represented by such topics as human relations, equal employment practices, and clinical conferences for school personnel administrators.

Highly specific courses were offered for specialties within the field of engineering. Two examples were advanced petroleum reservoir engineering and computer applications in mineral processing at low temperatures. Other offerings for engineers were corrosion engineering, plastics, ceramics, a conference on "Energy Conversion Research," and a refresher course in power instrumentation.

Colleges and universities served the continuing education needs of the legal profession through a variety of offerings. Among the activities reported were courses in trial procedure, wills and probate, farm and ranch law, patents, civil practice, and penal law revision. Review courses in preparation for the bar and accounting examinations were also offered by institutions of higher education.

For the management professions, courses tended to focus on the processes of administration and supervision. Among the course titles reported were scientific decisionmaking, management and the behavioral sciences, and modern management structures. Other areas included principles of purchasing, operations research, taxation and the controllership, and courses for special groups such as photographic dealers, transportation agents, and tire dealers. In the business-related areas, institutions of higher education cited courses concerned with banking practices, money and capital markets, Federal income tax, and the securities and investment market.

The following occupational areas each enrolled less than 1 percent of the total registrations in selected professions and technical occupations: personnel and public relations, labor union administration, library science, government, computer science, and architecture. Other professional registrations ranged from 1 percent to 3 percent in the following areas: Theology, investments, social work, secretarial studies, journalism, home economics, finance and banking, clinical psychology, and accounting. Registrations in agriculture were 3.1 percent; in real estate and insurance, 3.9 percent.

Registrations in activities designed for labor union leadership roles (administrative or supervisory) were offered by universities, rather than other types of institutions, in a ratio of more than 4 to 1. For only one professional group--theologians--did other 4-year institutions register more participants than the universities.

Among the science courses offered were those designed especially for biologists, chemists, physicists, and earth scientists.

Refresher activities in the library field dealt with such topics as textual criticism, reference services, and cooperation between university libraries. Illustrative of continuing theological education opportunities were courses

entitled drama in the parish program, church and community studies, contemporary theology, and marriage crisis counseling.

Appendix tables A-6 thru A-9 present additional estimated registration data and percent distributions by control and level of institution.

### Institutions

As noted earlier, more institutions of higher education (312) offered refresher courses in education than in any other field (see table 10). In terms of control, 64.1 percent of the 312 are public institutions and 35.9 percent private. By type of institution, 54.2 percent were classified as other 4-year institutions, 27.6 percent as universities, and 18.3 percent as 2-year institutions.

The second highest number of institutions (166) provided courses in management. Following closely behind management was engineering, with 156 institutions.

Fields offered by the fewest schools were labor union administration (12 institutions), other (13 institutions), and architecture (20 institutions).

The distribution of colleges and universities with noncredit refresher courses by control and level in the selected professional and technical occupations is shown in table 10.

Refresher courses in professional and technical fields tend to reflect the regular degree programs of colleges and universities. For example, public institutions of higher education offered almost 95 percent of the refresher courses in agriculture and forestry. Public institutions also participated, at a significantly higher rate than private institutions, in the fields of home economics (86.2 percent), stocks and investments (83.8 percent), personnel and public relations (82.8 percent), and government (80.0 percent). Theological studies are usually associated with private institutions. In this survey, 80.2 percent of the institutions reporting continuing education in theology were under private control. Further data on the distribution of each of the selected professions and technical occupations appear in appendix A, tables A-10 and A-11.

In summary, course offerings for selected professions and technical fields covered a wide range of subject matter, general as well as specific, and enrolled a great variety of specialists.

There are marked differences in size of registrations between publicly and privately controlled institutions. Institutions under public control (362) reported 83.9 percent of the registrations, while private institutions (256) accounted for 16.1 percent. Even more dramatic was the level of registrations for these activities in the public universities. These institutions (84) reported 63.7 percent of total registrations in professional and technical career development activities.

Table 10.--Percent distributions of institutions of higher education with non-credit refresher courses in selected professional and technical occupations, by control and level of institution and by field: United States, 1967-68

(Except health service specialties)

Field	Number of institutions	Percent of total number, each field				
		Control		Level		
		Public	Private	Universities	Other 4-year	2-year
Total	1/ 618	58.6	41.4	20.6	51.6	27.8
Accounting	72	61.1	38.9	44.4	34.7	20.8
Courses	57	64.9	35.1	45.6	33.3	21.1
Review courses	24	54.2	45.8	50.0	33.3	16.7
Agriculture and forestry	36	94.4	5.6	75.0	19.4	5.6
Architecture	20	75.0	25.0	85.0	10.0	5.0
Clinical psychology	30	70.0	30.0	70.0	26.7	3.3
Computer science	36	61.1	38.9	58.3	36.1	5.6
Education - teaching, counseling and guidance	312	64.1	35.9	27.6	54.2	18.3
Engineering	156	73.7	26.3	48.1	34.0	17.9
Courses	126	72.2	27.8	54.8	33.3	11.9
Review courses	53	77.4	22.6	37.7	35.8	26.4
Finance and banking	58	74.1	25.9	53.4	24.1	22.4
Government	35	80.0	20.0	77.1	20.0	2.9
Home economics	29	86.2	13.8	75.9	20.7	3.4
Journalism and the arts	56	75.0	25.0	55.4	33.9	10.7
Law	63	66.7	33.3	73.0	14.3	12.7
Courses	58	70.7	29.3	74.1	12.1	13.8
Review courses	7	42.9	57.1	71.4	28.6	--
Library science	28	67.9	32.1	57.1	39.3	3.6
Labor union - administrative or supervisory	12	41.7	58.3	50.0	41.7	8.3
Management	166	62.7	37.3	43.4	33.1	23.5
Natural and physical sciences	70	67.1	32.9	65.7	30.0	4.3
Personnel and public relations	29	82.8	17.2	48.3	37.9	13.8
Real estate and insurance	111	66.7	33.3	33.3	32.4	34.2
Courses	102	67.6	32.4	34.3	32.4	33.3
Review courses	16	50.0	50.0	25.0	37.5	37.5
Secretarial studies	70	77.1	22.9	34.3	25.7	40.0
Social work	32	68.8	31.2	65.6	31.3	3.1
Stock market and investments	80	83.8	16.2	32.5	20.0	47.5
Theology	96	19.8	80.2	22.9	71.9	5.2
Other	13	61.5	38.5	53.8	30.8	15.4

1/Details exceed total number of institutions because many institutions reported courses in more than one field.

Note.--Percent details may not add to 100.0 because of rounding.

## SURVEY PROCEDURES AND DEFINITIONS

The survey of "Selected Adult Education Activities in Institutions of Higher Education, 1967-68," provided the data for this report. The questionnaire, OE form 2300-8, was part of the Higher Education General Information Survey (HEGIS) package mailed to all the institutions of higher education in spring 1968.

Adult or continuing education includes activities designed for adults and out-of-school youth who are not regularly enrolled as students in institutions of higher education and whose interests are not ordinarily served by the regular degree program. Estimated registration data were requested for all courses in continuing education completed between July 1, 1967, and June 30, 1968, or any other 12-month period in 1967-68.

Registrations are the reported total number of individuals participating in each activity each time it is offered. Therefore, an individual is counted in total registrations each time he participates in an activity; and registrations, as reported, involve duplication of individual persons.

Few schools keep central records for noncredit activities; no attempt was made to obtain an unduplicated count of registrants. The survey was institutionwide in scope, and data were requested to reflect the selected adult or continuing education activities of undergraduate, graduate, and professional schools; schools of general studies; technical institutes in addition to those conducted by extension departments; and special institutes, bureaus, or other units of the institution. Many institutions appointed coordinators to assemble data from their various subdivisions.

Outside the scope of this survey are social or recreational activities that do not entail instruction, high school courses, activities for high school youth, and activities of less than 3 hours of planned instruction. Excluded also are courses creditable toward degrees of similar awards and courses based on 1-year or 2-year curriculums.

The refresher course is defined in this report as study carried on by practicing members of a profession or technical occupation (dentistry, dental hygiene, engineering, law, medicine, medical technology, office specialists, etc.) as a means of keeping abreast of developments which directly affect their career activities. (See appendix C for additional details.)

In this publication an institution is counted as having a noncredit activity or a particular professional or refresher activity if at least one such activity is reported. Separate reports submitted by branches or other components of an institution were checked to assure an unduplicated count of the registration data.

Institutions are classified as shown in the Office of Education Opening Fall Enrollment reports--4-year or 2-year, according to length of program. The 2-year institutions offer programs extending at least 2 but less than 4 years beyond high school. The 4-year institutions are further classified in two groups--universities and "other" 4-year. Universities are institutions that give considerable stress to graduate instruction, confer advanced as well as bachelor's degrees in a variety of liberal arts fields, and have at least two professional schools that are not exclusively technological. Four-year institutions not meeting these criteria make up the "other" 4-year group and include all institutions that grant bachelor's or higher degrees or some other type of recognition equivalent to such degrees (e.g., ecclesiastical recognition in a theological institution).

The short-term professional and technical occupational refresher activities include data that are not normally collected by campus administrators. Factors that contribute to the underreporting of these data included lack of common terminology, lack of uniform and/or established recordkeeping systems, and decentralized administration.

(1) Terminology:

The term "professional refresher course" was interpreted in different ways by responding institutions. (See Appendix C--Survey Report Form.) Data were reported for courses designed for "professional" secretaries, dental hygienists, etc. Institutions included courses for the paraprofessional and/or technician. It was judged more appropriate in this initial study to accept the data as given: refinements may be developed, based upon this experience, for subsequent surveys.

(2) Registration and recordkeeping procedures:

Followup procedures revealed more noncredit activity than reported, such underreporting resulting from a lack of records. For example, refresher activities conducted by the university-related cooperative extension services were not fully reported. In other cases, participants in these refresher courses often are far removed from the age and status of "regular" students, and college officials overlook them in reporting registrations. Although there were a few instances of overreporting, followup procedures most commonly resulted in additional reporting of noncredit data.



### **(3) Decentralized administration:**

Since the professional and technical occupational refresher courses are dispersed in various units and generally without a central reference point, they may have been completely overlooked when the institution's report was developed.

Special editing procedures were related to credit category and the overlap in data between professional refresher courses and community development and community service programs. The credit category was requested in part I of the survey form--Types of Activities and Registration--which required the respondent to indicate estimated registrations by type of activity (classes, short course, etc.) and by credit category. However, in Part VI--Professional Refresher Courses--the respondent was asked to provide estimated registrations by type of activity without specifying the credit category.

The credit or noncredit status of the professional refresher courses listed in part VI was determined through examination of replies in part I. The activity designated in part VI was linked with the categorization by type of activity in part I; i.e., degree-credit optional or noncredit. (E.g., refresher course in engineering is shown as a conference, but the data in part I show no registrations for a degree-credit optional conference; examination reveals that the refresher activities are essentially noncredit.)

The discussion of institutions participating in the professional and occupational refresher courses is limited to institutions with noncredit refresher courses. Rarely does an institution offer only a degree-credit optional refresher activity or a refresher course with credit that may not normally be used toward a degree or other formal award. (See Appendix C--Survey Report Form.) Although the refresher activities in this survey are essentially noncredit there is a noticeable exception in the field of education. Here it is estimated, from a review of the data, that a maximum of 5 percent of the institutions offering the refresher activities in education reported degree-credit optional activities in education and that these institutions accounted for a much smaller percentage of the total registrations in that profession.

Data overlap occurs because some continuing education activities could be classified both as a professional refresher activity and as a community development or community service program. To avoid the double count it was decided that whenever the professional content of the course was oriented toward practical community problems, it was classified as a community service or community development program.

It is estimated that less than 5 percent of the total registrations classified in the professional and technical refresher category could also be classified in community development or community service programs. However, since many institutions offer activities in both categories the total number of institutions offering these activities is not substantially affected. Large registrations in lecture series were adjusted upon consultation with the respondent to assure that the average attendance per lecture in the series was shown. These data were included only when they were identified as community development and service programs or professional refresher activities.

## Appendix A

### STATISTICAL TABLES

The data in the appendix tables show distributions of the numbers of institutions of higher education with noncredit professional and occupational refresher courses and the extent of registrations, by control of institution (public or private) and/or level of institution (university, other 4-year, or 2-year) and by profession or occupation for the United States, 1967-68.

C

Table A-1.--Estimated registrations and percent distributions of noncredit refresher courses in health of institution and by field:

Field	In all institutions				In publicly controlled institutions	
	Total	Universities	Other 4-year	2-year	Total	Universities
Number of registrations						
Total	170,657	140,635	27,335	2,687	130,610	117,126
Chiropody or podiatry	948	58	890	--	58	58
Dental hygiene	787	595	61	131	475	355
Dentistry	18,785	17,826	959	--	13,628	12,669
Hospital administration	4,424	3,558	580	286	3,397	2,900
Medical technology	3,344	2,528	683	133	3,056	2,278
Medicine	75,512	58,862	16,650	--	55,066	49,400
Nursing	27,974	24,059	2,038	1,877	25,170	21,880
Occupational and physical therapy	790	400	390	--	390	375
Optometry	2,258	867	1,391	--	1,097	867
Osteopathy	357	--	357	--	100	--
Pharmacy	13,969	10,827	3,142	--	9,623	8,248
Public health	2,053	2,053	--	--	1,062	1,062
Radiologic technology	459	450	9	--	459	450
Veterinary medicine	5,937	5,877	60	--	5,127	5,067
Other	13,060	12,675	125	260	11,902	11,517
Percent distributions						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Chiropody or podiatry	.6	(1/)	3.3	--	(1/)	.1
Dental hygiene	.5	.4	.2	4.9	.4	.3
Dentistry	11.0	12.7	3.5	--	10.4	10.8
Hospital administration	2.6	2.5	2.1	10.6	2.6	2.5
Medical technology	2.0	1.8	2.5	4.9	2.3	1.9
Medicine	44.2	41.9	60.9	--	42.3	42.2
Nursing	16.4	17.1	7.5	69.9	19.3	18.7
Occupational and physical therapy	.5	.3	1.4	--	.3	.3
Optometry	1.3	.6	5.1	--	.8	.7
Osteopathy	.2	--	1.3	--	.1	--
Pharmacy	8.2	7.7	11.5	--	7.4	7.0
Public health	1.2	1.5	--	--	.8	.9
Radiologic technology	.3	.3	(1/)	--	.4	.4
Veterinary medicine	3.5	4.2	.2	--	3.9	4.3
Other	7.7	9.0	.5	9.7	9.1	9.8

1/ Less than 0.05 percent.

Note.--Percent details may not add to 100.0 because of rounding.

service professional and technical occupations in institutions of higher education, by control and level  
United States, 1967-68

In publicly controlled institutions - Continued		In privately controlled institutions				Field
Other 4-year	2-year	Total	Universities	Other 4-year	2-year	
Number of registrations						
11,135	2,349	40,047	23,509	16,200	338	Total
---	--	890	--	890	--	Chiroprody or podiatry
54	66	312	240	7	65	Dental hygiene
959	--	5,157	5,157	--	--	Dentistry
254	243	1,027	658	326	43	Hospital administration
645	133	288	250	38	--	Medical technology
5,666	--	20,446	9,462	10,984	--	Medicine
1,643	1,647	2,804	2,179	395	230	Nursing
						Occupational and physical therapy
15	--	400	25	375	--	Optometry
230	--	1,161	--	1,161	--	Osteopathy
100	--	257	--	257	--	Pharmacy
1,375	--	4,346	2,579	1,767	--	Public health
--	--	991	991	--	--	Radiologic technology
9	--	--	--	--	--	Veterinary medicine
60	--	810	810	--	--	Other
125	260	1,158	1,158	--	--	
Percent distributions						
100.0	100.0	100.0	100.0	100.0	100.0	Total
--	--	2.2	--	5.5	--	Chiroprody or podiatry
.5	2.8	.8	1.0	(1/)	19.2	Dental hygiene
8.6	--	12.9	21.9	--	--	Dentistry
2.2	10.3	2.6	2.8	2.0	12.7	Hospital administration
5.8	5.7	.7	1.1	.2	--	Medical technology
50.9	--	51.1	40.2	67.8	--	Medicine
14.8	70.1	7.0	9.3	2.4	68.0	Nursing
						Occupational and physical therapy
.1	--	1.0	.1	2.3	--	Optometry
2.1	--	2.9	--	7.2	--	Osteopathy
.9	--	.6	--	1.6	--	Pharmacy
12.3	--	10.9	11.0	10.9	--	Public health
--	--	2.5	4.2	--	--	Radiologic technology
.1	--	--	--	--	--	Veterinary medicine
.5	--	2.0	3.4	--	--	Other
1.1	11.1	2.9	4.9	--	--	

Table A-2.--Percent distributions of estimated registrations in noncredit refresher courses in health service professional and technical occupations in publicly and privately controlled institutions of higher education, by level of institution and by field: United States, 1967-68

Field	Total	Registrations in--		
		Universities	Other 4-year	2-year
Public control				
Total	100.0	89.7	8.5	1.8
Chiropody or podiatry	100.0	100.0	--	--
Dental hygiene	100.0	74.7	11.4	13.9
Dentistry	100.0	93.0	7.0	--
Hospital administration	100.0	85.4	7.5	7.2
Medical technology	100.0	74.5	21.1	4.4
Medicine	100.0	89.7	10.3	--
Nursing	100.0	86.9	6.5	6.5
Occupational and physical therapy	100.0	96.2	3.8	--
Optometry	100.0	79.0	21.0	--
Osteopathy	100.0	--	100.0	--
Pharmacy	100.0	85.7	14.3	--
Public health	100.0	100.0	--	--
Radiologic technology	100.0	98.0	2.0	--
Veterinary medicine	100.0	98.8	1.2	--
Other	100.0	96.8	1.1	2.2
Private control				
Total	100.0	58.7	40.5	0.8
Chiropody or podiatry	100.0	--	100.0	--
Dental hygiene	100.0	77.0	2.2	20.8
Dentistry	100.0	100.0	--	--
Hospital administration	100.0	64.1	31.7	4.2
Medical technology	100.0	86.8	13.2	--
Medicine	100.0	46.3	53.7	--
Nursing	100.0	77.7	14.1	8.2
Occupational and physical therapy	100.0	6.2	93.8	--
Optometry	100.0	--	100.0	--
Osteopathy	100.0	--	100.0	--
Pharmacy	100.0	59.3	40.7	--
Public health	100.0	100.0	--	--
Radiologic technology	100.0	--	--	--
Veterinary medicine	100.0	100.0	--	--
Other	100.0	100.0	--	--

Note.--Percent details may not add to 100.0 because of rounding.



Table A-3.--Percent distributions of estimated registrations in noncredit refresher courses in health service professional and technical occupations in universities, other 4-year institutions, and 2-year institutions of higher education, by control of institution and by field: United States, 1967-68

Field	In universities		In other 4-year institutions		In 2-year institutions	
	Public control	Private control	Public control	Private control	Public control	Private control
Total	83.3	16.7	40.7	59.3	87.4	12.6
Chiropractic or podiatry	100.0	--	--	100.0	--	--
Dental hygiene	59.7	40.3	88.5	11.5	50.4	49.6
Dentistry	71.1	28.9	100.0	--	--	--
Hospital administration	81.5	18.5	43.8	56.2	100.0	--
Medical technology	90.1	9.9	94.4	5.6	--	--
Medicine	83.9	16.1	34.0	66.0	--	--
Nursing	90.9	9.1	80.6	19.4	87.7	12.3
Occupational and physical therapy	93.8	6.2	3.8	96.2	--	--
Optometry	100.0	--	16.5	83.5	--	--
Osteopathy	--	--	28.0	72.0	--	--
Pharmacy	76.2	23.8	43.8	56.2	--	--
Public health	51.7	48.3	--	--	--	--
Radiologic technology	100.0	--	100.0	--	--	--
Veterinary medicine	86.2	13.8	100.0	--	--	--
Other	90.9	9.1	100.0	--	--	--

Table A-4. -- Number of institutions of higher education with noncredit refresher courses in health service

Field	All institutions				Publicly controlled institutions	
	Total	Universities	4-year	2-year	Total	Universities
Total	216	106	55	55	139	60
Chiropractic or podiatry	4	1	3	--	1	1
Dental hygiene	16	10	3	3	13	9
Dentistry	41	34	7	--	29	22
Hospital administration	39	28	5	6	26	19
Medical technology	18	10	3	5	14	8
Medicine	54	38	16	--	38	27
Nursing	106	44	20	42	86	32
Occupational and physical therapy	10	7	3	--	7	6
Optometry	14	8	6	--	9	8
Osteopathy	4	--	4	--	1	--
Pharmacy	48	35	13	--	31	27
Public health	7	7	--	--	4	4
Radiologic technology	2	1	1	--	2	1
Veterinary medicine	21	20	1	--	19	18
Other	16	14	1	1	14	12

Note.--Details exceed total numbers of institutions because many institutions reported courses in more than one field.

professional and technical occupations, by control and level of institution and by field : United States, 1967-68

Publicly controlled institutions-- Continued		Privately controlled institutions				Field
Other 4-year	2-year	Total	Universities	Other 4-year	2-year	
27	52	77	46	28	3	Total
--	--	3	--	3	--	Chiropody or podiatry
2	2	3	1	1	1	Dental hygiene
7	--	12	12	--	--	Dentistry
2	5	13	9	3	1	Hospital administration
1	5	4	2	2	--	Medical technology
11	--	16	11	5	--	Medicine
13	41	20	12	7	1	Nursing
						Occupational and physical
1	--	3	1	2	--	therapy
1	--	5	--	5	--	Optometry
1	--	3	--	3	--	Osteopathy
4	--	17	8	9	--	Pharmacy
--	--	3	3	--	--	Public health
1	--	--	--	--	--	Radiologic technology
1	--	2	2	--	--	Veterinary medicine
1	1	2	2	--	--	Other

Table A-5.--Percent distributions of numbers of publicly and privately controlled institutions of higher education with noncredit refresher courses in health service professional and technical occupations, by field: United States, 1967-68

Field	Total	Institutions	
		Publicly controlled	Privately controlled
Total	100.0	100.0	100.0
Chiropody or podiatry	1.9	.7	3.9
Dental hygiene	7.4	9.4	3.9
Dentistry	19.0	20.9	15.6
Hospital administration	18.1	18.7	16.9
Medical technology	8.3	10.1	5.2
Medicine	25.0	27.3	20.8
Nursing	49.1	61.9	26.0
Occupational and physical therapy	4.6	5.0	3.9
Optometry	6.5	6.5	6.5
Osteopathy	1.9	.7	3.9
Pharmacy	22.2	22.3	22.1
Public health	3.2	2.9	3.9
Radiologic technology	.9	1.4	--
Veterinary medicine	9.7	13.7	2.6
Other	7.4	10.1	2.6

Note.--Percent details exceed 100.0 because many institutions reported courses in more than one field.

Table A-6.--Estimated registrations in noncredit refresher courses in selected professional and field: United States, 1967-68

Field	In all institutions				(Except health In publicly controlled institutions	
	Total	Universities	Other 4-year	2-year	Total	Universities
Total	785,129	571,198	176,254	37,677	658,557	500,462
Accounting	13,127	8,004	4,221	902	8,612	5,026
Courses	10,675	6,111	3,815	749	7,480	4,222
Review courses	2,452	1,893	406	153	1,132	804
Agriculture and forestry	24,278	22,601	1,491	186	23,771	22,494
Architecture	4,249	4,059	106	84	3,327	3,137
Clinical psychology	13,731	12,446	1,130	155	12,474	11,404
Computer science	3,507	2,902	540	65	2,487	2,111
Education - teaching, counseling and guidance	285,672	174,574	98,202	12,896	256,557	164,703
Engineering	84,730	66,583	16,415	1,732	69,368	58,262
Courses	79,619	63,579	15,004	1,036	65,022	55,651
Review courses	5,111	3,004	1,411	696	4,346	2,611
Finance and banking	9,949	8,522	930	497	7,700	6,611
Government	6,271	5,162	1,095	14	5,342	4,250
Home economics	9,644	8,606	988	50	7,556	6,968
Journalism and the arts	21,390	16,422	4,410	558	19,625	15,564
Law	77,594	74,536	1,158	1,900	64,592	61,688
Courses	76,659	73,661	1,098	1,900	63,839	60,935
Review courses	935	875	60	--	753	753
Library science	6,919	4,368	2,535	16	6,217	4,141
Labor union - administra- tive or supervisory	5,076	4,103	951	22	3,070	3,018
Management	71,778	57,872	11,348	2,558	55,841	47,110
Natural and physical sciences	39,482	33,996	5,180	306	36,395	31,651
Personnel and public relations	3,696	2,446	1,117	133	3,380	2,188
Real estate and insurance	30,269	18,125	6,272	5,872	24,144	15,874
Courses	26,867	16,131	5,333	5,403	22,381	14,496
Review courses	3,402	1,994	939	469	1,763	1,378
Secretarial studies	14,893	7,969	2,580	4,344	12,465	6,644
Social work	14,417	12,704	1,710	3	12,469	11,514
Stock market and investments	19,828	13,324	1,498	5,006	17,856	11,720
Theology	22,781	10,403	12,082	296	3,547	2,976
Other	1,848	1,471	295	82	1,762	1,408

technical occupations in institutions of higher education, by control and level of institution and by service specialties)

In publicly controlled institutions--Continued		In privately controlled institutions				Field
Other 4-year	2-year	Total	Universities	Other 4-year	2-year	
123,297	34,798	126,572	1,736	52,957	2,879	Total
3,217	369	4,515	2,978	1,004	533	Accounting
3,042	216	3,195	1,889	773	533	Courses
175	153	1,320	1,089	231	--	Review courses
1,091	186	507	107	400	--	Agriculture and forestry
106	84	922	922	--	--	Architecture
915	155	1,257	1,042	215	--	Clinical psychology
311	65	1,020	791	229	--	Computer science
						Education - teaching,
79,954	11,900	29,115	9,871	18,248	996	counseling and guidance
9,394	1,712	15,362	8,321	7,021	20	Engineering
8,355	1,016	14,597	7,928	6,649	20	Courses
1,039	696	765	393	372	--	Review courses
597	492	2,249	1,911	333	5	Finance and banking
1,078	14	929	912	17	--	Government
538	50	2,088	1,638	450	--	Home economics
3,631	430	1,765	858	779	128	Journalism and the arts
1,004	1,900	13,002	12,848	154	--	Law
1,004	1,900	12,820	12,726	94	--	Courses
--	--	182	122	60	--	Review courses
2,060	16	702	227	475	--	Library science
						Labor union - administra-
30	22	2,006	1,085	921	--	tive or supervisory
						Management
6,264	2,467	15,937	10,762	5,084	91	Natural and physical
						sciences
4,553	191	3,087	2,345	627	115	Personnel and public
						relations
1,059	133	316	258	58	--	Real estate and insurance
2,575	5,695	6,125	2,251	3,697	177	Courses
2,564	5,321	4,486	1,635	2,769	82	Review courses
11	374	1,639	616	928	95	Secretarial studies
2,027	3,794	2,428	1,325	553	550	Social work
	--	1,948	1,190	755	3	Stock market and
						investments
1,130	5,006	1,972	1,604	368	--	Theology
536	35	19,234	7,427	11,546	261	Other
272	82	86	63	23	--	



Table A-7.--Percent distributions of estimated registrations in noncredit refresher courses in institution and by field:

Field	(Except health In all institutions				In publicly controlled	
	Total	Universities	Other 4-year	2-year	Total	Universities
Total:						
Number	785,129	571,198	176,254	37,677	658,557	500,462
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Accounting	1.7	1.4	2.4	2.4	1.3	1.0
Courses	1.4	1.1	2.2	2.0	1.1	.8
Review courses	.3	.3	.2	.4	.2	.2
Agriculture and forestry	3.1	4.0	.8	.5	3.6	4.5
Architecture	.5	.7	.1	.2	.5	.6
Clinical psychology	1.7	2.2	.6	.4	1.9	2.3
Computer science	.4	.5	.3	.2	.4	.4
Education - teaching, counseling and guidance	36.4	30.6	55.7	34.2	39.0	32.9
Engineering	10.8	11.7	9.3	4.6	10.5	11.6
Courses	10.1	11.1	8.5	2.7	9.9	11.1
Review courses	.7	.5	.8	1.8	.7	.5
Finance and banking	1.3	1.5	.5	1.3	1.2	1.3
Government	.8	.9	.6	(1/)	.8	.8
Home economics	1.2	1.5	.6	.1	1.1	1.4
Journalism and the arts	2.7	2.9	2.5	1.5	3.0	3.1
Law	9.9	13.0	.7	5.0	9.8	12.3
Courses	9.8	12.9	.6	5.0	9.7	12.2
Review courses	.1	.2	(1/)	--	.1	.2
Library science	.9	.8	1.4	(1/)	.9	.8
Labor union - administra- tive or supervisory	.6	.7	.5	.1	.5	.6
Management	9.1	10.1	6.4	6.8	8.5	9.4
Natural and physical sciences	5.0	6.0	2.9	.8	5.5	6.3
Personnel and public relations	.5	.4	.6	.4	.5	.4
Real estate and insurance	3.9	3.2	3.6	15.6	3.7	3.2
Courses	3.4	2.8	3.0	14.3	3.4	2.9
Review courses	.4	.4	.5	1.2	.3	.3
Secretarial studies	1.9	1.4	1.5	11.5	1.9	1.3
Social work	1.8	2.2	1.0	(1/)	1.9	2.3
Stock market and investments	2.5	2.3	.8	13.3	2.7	2.3
Theology	2.9	1.8	6.9	.8	.5	.6
Other	.2	.3	.2	.2	.3	.3

1/ Less than 0.05 percent.

Note.--Percent details may not add to 100.0 because of rounding.

selected professional and technical occupations in institutions of higher education, by control and level of United States, 1967-68

service specialties)

In publicly controlled-- Continued		In privately controlled				Field
Other 4-year	2-year	Total	Universities	Other 4-year	2-year	
123,297 100.0	34,798 100.0	126,572 100.0	70,736 100.0	52,957 100.0	2,879 100.0	Total: Number Percent
2.6	1.1	3.6	4.2	1.9	18.5	Accounting
2.5	.6	2.5	2.7	1.5	18.5	Courses
.1	.4	1.0	1.5	.4	--	Review courses
.9	.5	.4	.1	.8	--	Agriculture and forestry
.1	.2	.7	1.3	--	--	Architecture
.7	.4	1.0	1.5	.4	--	Clinical psychology
.3	.2	.8	1.1	.4	--	Computer science
						Education - teaching,
64.8	34.2	23.0	14.0	34.5	34.6	counseling and guidance
7.6	4.9	12.1	11.8	13.3	.7	Engineering
6.8	2.9	11.8	11.2	12.6	.7	Courses
.8	2.0	.6	.6	.7	--	Review courses
.5	1.4	1.8	2.7	.6	.2	Finance and banking
.9	(1/)	.7	1.3	(1/)	--	Government
.4	.1	1.6	2.3	.8	--	Home economics
2.9	1.2	1.4	1.2	1.5	4.4	Journalism and the arts
.8	5.5	10.3	18.2	.3	--	Law
.8	5.5	10.1	18.0	.2	--	Courses
--	--	.1	.2	.1	--	Review course
1.7	.1	.6	.3	.9	--	Library sciences
						Labor union - administra-
(1/)	.1	1.6	1.5	1.7	--	tive or supervisory
5.1	7.1	12.6	15.2	9.6	3.2	Management
						Natural and physical
3.7	.5	2.4	3.3	1.3	4.0	sciences
						Personnel and public
.9	.4	.2	.4	.1	--	relations
2.1	16.4	4.8	3.2	7.0	6.1	Real estate and insurance
2.1	15.3	3.5	2.3	5.2	2.8	Courses
(1/)	1.1	1.3	.9	1.8	3.3	Review courses
1.6	10.9	1.9	1.9	1.0	19.1	Secretarial studies
.8	--	1.5	1.7	1.4	.1	Social work
						Stock market and
.9	14.4	1.6	2.3	.7	--	investments
.4	.1	15.2	10.5	21.8	9.1	Theology
.2	.2	.1	.1	(1/)	--	Other

Table A-8.--Percent distributions of estimated registrations in noncredit refresher controlled institutions of higher education, by level

(Except health

Field	In publicly controlled institutions			
	Total	Universities	Other 4-year	2-year
Total	100.0	76.0	18.7	5.3
Accounting	100.0	58.4	37.4	4.3
Courses	100.0	56.4	40.7	2.9
Review courses	100.0	71.0	15.5	13.5
Agriculture and forestry	100.0	94.6	4.6	.8
Architecture	100.0	94.3	3.2	2.5
Clinical psychology	100.0	91.4	7.3	1.3
Computer science	100.0	84.9	12.5	2.6
Education - teaching				
counseling and guidance	100.0	64.2	31.2	4.6
Engineering	100.0	84.0	13.5	2.5
Courses	100.0	85.6	12.8	1.6
Review courses	100.0	60.1	23.9	16.0
Finance and banking	100.0	85.9	7.8	6.4
Government	100.0	79.6	20.2	.3
Home economics	100.0	92.2	7.1	.7
Journalism and the arts	100.0	79.3	18.5	2.2
Law	100.0	95.5	1.6	2.9
Courses	100.0	95.5	1.6	3.0
Review courses	100.0	100.0	--	--
Library science	100.0	66.6	33.1	.3
Labor union - administrative				
or supervisory	100.0	98.3	1.0	.7
Management	100.0	84.4	11.2	4.4
Natural and physical				
sciences	100.0	87.0	12.5	.5
Personnel and public				
relations	100.0	64.7	31.3	3.9
Real estate and insurance	100.0	65.7	10.7	23.6
Courses	100.0	64.8	11.5	23.8
Review courses	100.0	78.2	.6	21.2
Secretarial studies	100.0	53.3	16.3	30.4
Social work	100.0	92.3	7.7	--
Stock market and investments	100.0	65.6	6.3	28.0
Theology	100.0	83.9	15.1	1.0
Other	100.0	79.9	15.4	4.7

Note.--Percent details may not add to 100.0 because of rounding.

courses in selected professional and technical occupations in publicly and privately of institution and by field: United States, 1967-68

service specialties)

In privately controlled institutions				Field
Total	Universities	Other 4-year	2-year	
100.0	55.9	41.8	2.3	Total
100.0	66.0	22.2	11.8	Accounting
100.0	59.1	24.2	16.7	Courses
100.0	82.5	17.5	—	Review courses
100.0	21.1	78.9	—	Agriculture and forestry
100.0	100.0	—	—	Architecture
100.0	82.9	17.1	—	Clinical psychology
100.0	77.5	22.5	—	Computer science
100.0	33.9	62.7	3.4	Education - teaching, counseling and guidance
100.0	54.2	45.7	.1	Engineering
100.0	54.3	45.6	.1	Courses
100.0	51.4	48.6	—	Review courses
100.0	85.0	14.8	.2	Finance and banking
100.0	98.2	1.8	—	Government
100.0	78.4	21.6	—	Home economics
100.0	48.6	44.1	7.3	Journalism and the arts
100.0	98.8	1.2	—	Law
100.0	99.3	.7	—	Courses
100.0	67.0	33.0	—	Review courses
100.0	32.3	67.7	—	Library science
100.0	54.1	45.9	—	Labor union - administrative or supervisory
100.0	67.5	31.9	.6	Management
100.0	76.0	20.3	3.7	Natural and physical sciences
100.0	81.6	18.4	—	Personnel and public relations
100.0	36.8	60.4	2.9	Real estate and insurance
100.0	36.4	61.7	1.8	Courses
100.0	37.6	56.6	5.8	Review courses
100.0	54.6	22.8	22.7	Secretarial studies
100.0	61.1	38.8	.2	Social work
100.0	81.3	18.7	—	Stock market and investments
100.0	38.6	60.0	1.4	Theology
100.0	73.3	26.7	—	Other

Table A-9.--Percent distributions of estimated registrations in noncredit refresher courses in selected professional and technical occupations in universities, other 4-year institutions, and 2-year institutions of higher education, by control of institution and by field: United States, 1967-68

(Except health service specialties)

Field	In universities		In other 4-year institutions		In 2-year institutions	
	Public control	Private control	Public control	Private control	Public control	Private control
Total	87.6	12.4	70.0	30.0	92.4	7.6
Accounting	62.8	37.2	76.2	23.8	40.9	59.1
Courses	69.1	30.9	79.7	20.3	28.8	71.2
Review courses	42.5	57.5	43.1	56.9	100.0	--
Agriculture and forestry	99.5	.5	73.2	26.8	100.0	--
Architecture	77.3	22.7	100.0	--	100.0	--
Clinical psychology	91.6	8.4	81.0	19.0	100.0	--
Computer science	72.7	27.3	57.6	42.4	100.0	--
Education - teaching, counseling and guidance	94.3	5.7	81.4	18.6	92.3	7.7
Engineering	87.5	12.5	57.2	42.8	98.8	1.2
Courses	87.5	12.5	55.7	44.3	98.1	1.9
Review courses	86.9	13.1	73.6	26.4	100.0	--
Finance and banking	77.6	22.4	64.2	35.8	99.0	1.0
Government	82.3	17.7	98.4	1.6	100.0	--
Home economics	81.0	19.0	54.5	45.5	100.0	--
Journalism and the arts	94.8	5.2	82.3	17.7	77.1	22.9
Law	82.8	17.2	86.7	13.3	100.0	--
Courses	82.7	17.3	91.4	8.6	100.0	--
Review courses	86.1	13.9	--	100.0	--	--
Library science	94.8	5.2	81.3	18.7	100.0	--
Labor union - administrative or supervisory	73.6	26.4	3.2	96.8	100.0	--
Management	81.4	18.6	55.2	44.8	96.4	3.6
Natural and physical sciences	93.1	6.9	87.9	12.1	62.4	37.6
Personnel and public relations	89.5	10.5	94.8	5.2	100.0	--
Real estate and insurance	87.6	12.4	41.1	58.9	97.0	3.0
Courses	89.9	10.1	48.1	51.9	98.5	1.5
Review courses	69.1	30.9	1.2	98.8	79.7	20.3
Secretarial studies	83.4	16.6	78.6	21.4	87.3	12.7
Social work	90.6	9.4	55.8	44.2	--	100.0
Stock market and investments	88.0	12.0	75.4	24.6	100.0	--
Theology	28.6	71.4	4.4	95.6	11.8	88.2
Other	95.7	4.3	92.2	7.8	100.0	--

Table A-10.--Number of institutions of higher education with noncredit refresher courses in  
United States,

(Except health

Field	All institutions				Publicly controlled institutions	
	Total	Univer- sities	Other 4-year	2-year	Total	Univer- sities
Total	618	127	319	172	362	84
Accounting	72	32	25	15	44	20
Courses	57	26	19	12	37	19
Review courses	24	12	8	4	13	4
Agriculture and forestry	36	27	7	2	34	26
Architecture	20	17	2	1	15	12
Clinical psychology	30	21	8	1	21	14
Computer science	36	21	13	2	22	14
Education - teaching,						
counseling and guidance	312	86	169	57	200	67
Engineering	156	75	53	28	115	57
Courses	126	69	42	15	91	53
Review courses	53	20	19	14	41	16
Finance and banking	58	31	14	13	43	23
Government	35	27	7	1	28	21
Home economics	29	22	6	1	25	19
Journalism and the arts	56	31	19	6	42	25
Law	63	46	9	8	42	30
Courses	58	43	7	8	41	29
Review courses	7	5	2	--	3	3
Library science	28	16	11	1	19	12
Labor union - administra-						
tive or supervisory	12	6	5	1	5	3
Management	166	72	55	39	104	43
Natural and physical						
sciences	70	46	21	3	47	34
Personnel and public						
relations	29	14	11	4	24	12
Real estate and insurance	111	37	36	38	74	26
Courses	102	35	33	34	69	25
Review courses	16	4	6	6	8	2
Secretarial studies	70	24	18	28	54	19
Social work	32	21	10	1	22	15
Stock market and						
investments	80	26	16	38	67	19
Theology	96	22	69	5	19	14
Other	13	7	4	2	8	4

Note.--Details exceed total numbers of institutions because many institutions reported courses in more than one field.



selected professional and technical occupations, by control and level of institution and by field:  
1967-68

service specialties)

Publicly controlled institutions--Continued		Privately controlled institutions				Field
Other 4-year	2-year	Total	Universities	Other 4-year	2-year	
124	154	256	43	195	18	Total
12	12	28	12	13	3	Accounting
9	9	20	7	10	3	Courses
5	4	11	8	3	--	Review courses
6	2	2	1	1	--	Agriculture and forestry
2	1	5	5	--	--	Architecture
6	1	9	7	2	--	Clinical psychology
6	2	14	7	7	--	Computer science
85	48	112	19	84	9	Education - teaching, counseling and guidance
31	27	41	18	22	1	Engineering
24	14	35	16	18	1	Courses
11	14	12	4	8	--	Review courses
8	12	15	8	6	1	Finance and banking
6	1	7	6	1	--	Government
5	1	4	3	1	--	Home economics
12	5	14	6	7	1	Journalism and the arts
4	8	21	16	5	--	Law
4	8	17	14	3	--	Courses
--	--	4	2	2	--	Review courses
6	1	9	4	5	--	Library science
1	1	7	3	4	--	Labor union - administrative or supervisory
25	36	62	29	30	3	Management
11	2	23	12	10	1	Natural and physical sciences
8	4	5	2	3	--	Personnel and public relations
13	35	37	11	23	3	Real estate and insurance
12	32	33	10	21	2	Courses
1	5	8	2	5	1	Review courses
12	23	16	5	6	5	Secretarial studies
7	--	10	6	3	1	Social work
10	38	13	7	6	--	Stock market and investments
4	1	77	8	65	4	Theology
2	2	5	3	2	--	Other

Table A-11. -- Percent distributions of institutions of higher education with noncredit refresher courses in selected professional and technical occupations, by control and level of institution and by field: United States, 1967-68

(Except health service specialties)

Field	All institutions			Universities, total	Other 4-year, total	2-year, total
	Total	Public	Private			
Total:						
Number	618	362	256	127	319	172
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Accounting	11.7	12.2	10.9	25.2	7.8	8.7
Courses	9.2	10.2	7.8	20.5	6.0	7.0
Review courses	3.9	3.6	4.3	9.4	2.5	2.3
Agriculture and forestry	5.8	9.4	.8	21.3	2.2	1.2
Architecture	3.2	4.1	2.0	13.4	.6	.6
Clinical psychology	4.9	5.8	3.5	16.5	2.5	.6
Computer science	5.8	6.1	5.5	16.5	4.1	1.2
Education - teaching, counseling and guidance	50.5	55.2	43.8	67.7	53.0	33.1
Engineering	25.2	31.8	16.0	59.1	16.6	16.3
Courses	20.4	25.1	13.7	54.3	13.2	8.7
Review courses	8.6	11.3	4.7	15.7	6.0	8.1
Finance and banking	9.4	11.9	5.9	24.4	4.4	7.6
Government	5.7	7.7	2.7	21.3	2.2	.6
Home economics	4.7	6.9	1.6	17.3	1.9	.6
Journalism and the arts	9.1	11.6	5.5	24.4	6.0	3.5
Law	10.2	11.6	8.2	36.2	2.8	4.7
Courses	9.4	11.3	6.6	33.9	2.2	4.7
Review courses	1.1	.8	1.6	3.9	.6	--
Library science	4.5	5.2	3.5	12.6	3.4	.6
Labor union - administrative or supervisory	1.9	1.4	2.7	4.7	1.6	.6
Management	26.9	28.7	24.2	56.7	17.2	22.7
Natural and physical sciences	11.3	13.0	9.0	36.2	6.6	1.7
Personnel and public relations	4.7	6.6	2.0	11.0	3.4	2.3
Real estate and insurance	18.0	20.4	14.5	29.1	11.3	22.1
Courses	16.5	19.1	12.9	27.6	10.3	19.8
Review courses	2.6	2.2	3.1	3.1	1.9	3.5
Secretarial studies	11.3	14.9	6.2	18.9	5.6	16.3
Social work	5.2	6.1	3.9	16.5	3.1	.6
Stock market and investments	12.9	18.5	5.1	20.5	5.0	22.1
Theology	15.5	5.2	30.1	17.3	21.6	2.9
Other	2.1	2.2	2.0	5.5	1.3	1.2

Note. -- Percent details exceed 100.0 because many institutions reported courses in more than one field.

## Appendix B

### LISTING OF REFRESHER ACTIVITIES IN PROFESSIONAL AND TECHNICAL OCCUPATIONS OFFERED BY INSTITUTIONS OF HIGHER EDUCATION, 1967-68

Data for the following list of educational activities come from Part VI-- Professional Refresher Courses--of the survey form. Along with other data, responding institutions were requested to indicate topics of refresher courses. Although this listing is only a sample, it demonstrates that individuals return to institutions of higher education for the purpose of maintaining skills and/or advancing career interests. It also demonstrates institutional response to a wide scope of educational needs.

#### Health Service Professional and Technical Occupations

##### Chiropody or podiatry

Podiatric medicine and surgery  
Surgery

##### Dental hygiene

Basic concepts in dental hygiene  
Dental team in practice  
Dental technology  
Developing clinical excellence  
Relicensing refresher

##### Dentistry

Dental management of the aging patient  
Dentistry for children  
Full mouth reconstruction  
Modern concepts in bridge design  
New procedures in dentistry  
Oral pathology  
Practical endodontics for general practitioner  
Preventive orthodontics  
Production and use of photographs in dental office  
X-ray techniques

##### Hospital administration

Administration of long-term care facilities  
Hospital ward management

### Medical technology

Instrumentation in medical technology  
Medical assistants - laboratory procedures

### Medicine

Application of X-ray analysis  
Changes in medical care  
Common metabolic disorders  
Internal medicine  
Medical aspects of aging  
Neurology  
Pediatrics  
Radiology of the skull  
Selected topics in medicine  
Surgery

### Nursing

Death and the family  
Diabetes and the nurse  
Head nurse functions  
Neurological and neurosurgical nursing  
Nursing in the intensive care unit  
Nutritional aspects of aging  
Preparing the R.N. for reentry into nursing  
Study of sociopsychiatric concepts in the practice of nursing  
Trends in nursing service

### Optometry

Optometric procedures  
Vision care of aging patients

### Osteopathy

General medicine practice  
Hematology

### Pharmacy

Advances in pharmaceutical sciences  
Aerosol technology  
Antibiotics  
Drug therapy  
Hallucinogenic drug law  
Hospital pharmacists' actions and activities  
Institutional pharmaceutical sciences  
Pharmacists' role in medical care  
Pharmacists' role in mental health  
Symposium on pain

### Public health

Ambulatory care service  
Comprehensive health planning  
Family planning in an urban society  
Management seminar for public health administrators

### Veterinary medicine

Animal diseases  
Clinical diagnosis and management of heart diseases in dogs  
Dermatology of small animals  
Evaluation of bulls  
Examination of reproductive problems in cows  
Research in veterinary medicine

### Other (refresher) courses for practitioners of many professions)

Addictions - drug, alcohol, food, and tobacco  
Children with learning disorders  
Community psychiatry  
Family psychiatry  
Health of the school child  
Hospital management of challenging psychiatric problems  
Mentally retarded adult in the community  
On-the-spot treatment  
Patient and his family

### Selected Professional and Technical Occupations

(Except health service specialties)

#### Accounting

##### Courses

Accounting theory  
Auditing  
Cost accounting  
Managerial accounting  
Manufacturing accounting  
New computer methods in accounting

##### Exam preparation, review

Certified public accountants test - review for test  
General review courses

### Agriculture and forestry

Animal science  
Cooperative forest management methods  
Farm management  
Labor-saving devices  
Log hauling and transport methods  
Principles in the development of agricultural policy  
Research in agriculture  
Safety procedures in forest applications  
Sawmill improvement  
Soil fertility

### Architecture

Architecture refresher short course  
Islamic architecture and Western medieval architecture  
Research and teaching of architecture

### Computer science

Analog computing - uses of - potential advantages and limitations  
Automation and the computer  
Computers and their uses  
Computer problems  
Computer simulation in systems design  
Effective computer software  
Management information systems  
Modern concepts in systems analysis  
New developments in computer  
Survey of digital computer programming

### Education-teaching, counseling and guidance

Changing role of the teacher  
Contemporary teacher in higher education  
Critical problems in education  
Education and new technology  
How to use new teaching materials  
Human relations and educational management  
Integrated approach to botany, zoology, ecology, and geology  
for junior college teachers  
Modern math for teachers  
Reading conference  
Teaching migrant children  
Trends in curriculum development  
Use of current news as teaching aid



## Engineering

### Courses

- Acoustics and noise control
- Advanced petroleum reservoir engineering
- Advanced waste treatment
- Ceramic engineering
- Corrosion engineering
- Energy conversion research
- Industrial noise and engineering control
- Mine ventilation
- New developments in engineering design
- Techniques and principles of soil sterilization
- Theory and practice of metallurgical engineering

### Exam preparation, review

- Chemical engineering - refresher short course
- General engineering - refresher short course
- General review of selected topics
- Mathematics - review of applied mathematics for engineers
- Mechanical engineering - refresher short course
- Refresher course in power instrumentation
- Refresher for professional engineers' examination
- Review and preparation for State engineering license
- Selected engineering topics to qualify participants for professional license examination

## Finance and banking

- Banking, investments, and insurance
- Banking practices
- Business and commerce
- Certified program in banking
- Fundamentals of investments
- Money and capital markets
- Securities and investment market
- Securities exchanges
- Seminar banking
- Stock investment

## Government

- Management needs for county government offices
- Public agency employees - State and local interviewing techniques

## Home economics

- Clothing, nutrition, and family economics
- Food technology
- Obesity

### Journalism and the arts

Church organist workshop  
Color photography  
Composition and literature  
Elements of journalism (news, reporting, editing, and copy writing)  
Literature and materials of music  
Modern ballet choreography  
Sketching and painting  
Stage, screen, and radio  
Writing for publication

### Labor union - administration or supervisory

Bargaining agreements - labor-management relations

### Law

#### Courses

Admiralty law  
Appellate practice  
Aspects of municipal law  
Condemnation law  
Farm and ranch law  
International law  
Juvenile law  
Patent law  
Taxation law  
Trial procedure  
Wills and probate

#### Exam preparation, review

Bar review

### Library science

Classification and cataloging of library materials  
Librarians conference  
New trends, public libraries  
Reference materials

### Management

Controllership as an effective management tool  
Executive textile seminar  
Financial management of small business  
Income tax and business decision  
Modern techniques of supervision  
Operations research and management science

### Management--Continued

Principles of purchasing  
Techniques and skills of business operation, including the social responsibilities of business  
Transportation management program

### Natural and physical sciences

Aerospace physics  
Chemical and biological polymers  
Precision electromagnetic measurements  
Radioisotopes  
Science and technology of paper industry

### Personnel and public relations

Employee orientation program for personnel directors  
Personnel management  
Personnel management and supervision  
Techniques of personnel recruitment and selection

### Real estate and insurance

#### Courses

Appraisal procedures  
Changing concepts in automobile insurance  
Escrow practices  
Estate planning  
Fundamentals of life and health insurance  
Group pensions - accident and health  
Principles of casualty insurance and trading  
Problems of financing and making investments in property  
Real estate - finance, practices, principles, and legal aspects  
Real estate practice

#### Exam preparation, review

General refresher course - sales, finance, etc.  
Preparation for certification for property and casualty underwriting  
Preparation for state examination as life insurance agents  
Refresher courses for professional examination - chartered underwriting  
Study program

### Secretarial studies

Business administration for secretaries  
Business theory for secretaries (economics, accounting, money and banking, business law, and general office procedures)  
Certified professional secretary (accounting, business law, business)  
Medical secretaries (medical terms, anatomy, accounting, and credit collections)  
Professional legal secretary (law, secretarial procedures and practices)  
Secretarial accounting

### Social work

Advanced social work  
Casework  
Cottage parents  
Group work  
New techniques in handling social welfare cases  
Orientation program for caseworkers  
Philosophy and principles for employed social service workers  
Program designed for employees of community agencies to upgrade skills  
of their employees  
Social work seminars  
Vocational rehabilitation viewpoint of social-workers

### Stock market and investments

Federal income tax  
Insurance and real estate investing  
Investments  
Securities and investment  
Stocks, bonds, and mutual funds

### Theology

Church and family life  
Drama in the parish program  
New directions in preaching  
Philosophical theology  
Seminar on ministering to alcoholics  
Sermon preparation and presentation

## Appendix C

### SURVEY REPORT FORM

BUDGET BUREAU NO. 51-567917  
APPROVAL EXPIRES: 12-31-68

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
OFFICE OF EDUCATION  
WASHINGTON, D.C. 20202

### HIGHER EDUCATION GENERAL INFORMATION SURVEY INSTRUCTIONS AND DEFINITIONS FOR OE FORM 2300-8

#### SELECTED ADULT EDUCATION ACTIVITIES IN INSTITUTIONS OF HIGHER EDUCATION, 1967-68

OE Form 2300-8 is designed to determine adult or continuing education activities in institutions of higher education and to obtain estimates of the volume of these activities. The data will make it possible to design surveys in the field of higher adult education and to obtain information of a more detailed nature, as needed for the planning and evaluation of these activities.

Higher adult or continuing education includes activities designed for adults and out-of-school youth who are not regularly enrolled as students and whose needs are not ordinarily met by regular degree courses.

The survey is institution-wide in scope and activities of all schools or units are to be reported. Include activities of undergraduate, graduate and professional schools, schools of general studies, technical institutes, in addition to those conducted by extension departments, special institutes, bureaus, or other units of your institution.

An activity should be reported if it is sponsored wholly or partly by your institution and it is part of the instructional

staffs (resident and extension) official university program. The activities are often offered by a distinct administrative unit, e.g., extension division, evening college. Registration is for courses of instruction given under programs of optional degree credit and/or noncredit. Activities conducted jointly with nonacademic organizations are also reportable.

To insure full coverage it is recommended that your institution designate one person as coordinator with responsibility for assuring that the requested information is obtained from all relevant institutional components. The coordinator may request additional copies of OE Form 2300-8 to distribute to the reporting units of the institution to use in compiling an institution-wide return.

Please read the instructions, definitions, and schedules that follow before compiling the data. If you need clarification on any of the items or additional copies of this form, please call Miss Florence B. Kemp, Area Code 202, 963-5968 in Washington, D.C.

#### INSTRUCTIONS

1. **TIME PERIOD COVERED.** Include all courses of instruction completed by your institution between July 1, 1967 and June 30, 1968 or for another 12-month period in 1967-68 that includes summer sessions and intersessions. (Do not include programs begun, but not completed in the 12-month period.)

2. **SCOPE OF THE STUDY.** Report consolidated data; include the activities of the main campus, branches, extension centers, other campuses, all departments or divisions, and all other units of your institution. Report activities conducted on or off-campus, including activities scheduled during any time of the year with meetings conducted during the day, afternoon, or evening or weekends.

3. **ESTIMATED REGISTRATIONS.** Registrations refer to the total number of participants for each type of activity, not to individual persons, i.e., one individual may account for more than one registration. Include registrations for all of the sections of the activity each time it is offered during the twelve-month period. The estimated total number of registrations for each type of activity is requested.

4. **EXCEPTIONS AND EXCLUSIONS** are listed below:

a. Exclude activities which include less than 3 hours of planned instruction.

b. Exclude activities which are primarily social or recreational. (This exclusion would not apply, however, to swimming classes or other organized recreational courses which include 3 or more hours of planned instruction.)

c. Exclude high school courses and activities for high school youths.

d. Exclude courses creditable toward academic degrees or similar awards, including courses based on 1-year or 2-year curriculums. Enrollees in such courses should be reported in the regular enrollment forms of this survey, i.e., OE Forms 2300-1, 2300-2, 2300-2.8, 2300-5 and 2300-6. (Courses reportable on those forms—and not reportable here—include: (i) Correspondence courses creditable toward a degree or other formal award; (ii) Courses leading to certificates which are eventually equivalent to bachelor's or higher degrees; and (iii) Curriculums of 1-, 2-, or 3-year programs leading to degrees or other awards in occupational areas, including curriculums of at least 1 year whose completion makes the student eligible, upon examination, for licensing by a State authority.)

## DEFINITIONS

### CREDIT CATEGORIES

**DEGREE-CREDIT—OPTIONAL.** This term refers to certain types of recognition other than credit normally used toward a degree or other formal award. An example of a degree-credit—optional activity might be that contributing toward occupational advancement, or certification or other recognition of attendance; such recognition may be a kind which, though not automatically credited toward a degree or other formal award, may be so credited on the initiative of the student.

**NONCREDIT.** This term includes instructional activities exclusive of the degree-credit—optional activities defined above.

### TYPE OF ACTIVITY

1. **CLASS.** A regularly scheduled meeting of a group formally organized for instruction in a specific topic or area, and extending over an entire session or intersession.
2. **SHORT COURSE.** A short course differs from a class as defined above only insofar as it extends over a more limited time period and may begin and terminate at any time.
3. **CONFERENCE, INSTITUTE, AND/OR WORKSHOP.** An organized instructional program which meets for 3 hours or more in continuous session except for meals and recesses.
4. **LECTURE SERIES.** A form of activity consisting essentially of a series of lectures. The presentations are often based on a common theme. Registration for the entire series is encouraged although attendance at individual lectures may be permitted.
5. **DISCUSSION GROUP.** A method of instruction with regularly scheduled meetings that have intervening time periods. The major emphasis is upon the intellectual interaction of the group. Participation is emphasized.
6. **CORRESPONDENCE COURSE.** A course of instruction involving a continuing exchange between instructor and student and conducted primarily by written communication.
7. **CLOSED CIRCUIT TV INSTRUCTION.** Instruction through the medium of TV with program preparation and distribution completely controlled by the institution.

8. **BROADCAST TV INSTRUCTION.** Instruction over commercial or educational TV channels which is available to the public but permits viewers the option of registering with your institution and meeting its requirements. The registration to be reported is that for which there is some evidence of participation, e.g., registration for credit, purchase of a study guide, etc.

9. **CLOSED CIRCUIT AUDIO-INSTRUCTION.** Instruction over a closed circuit audio system completely controlled by the institution.

10. **BROADCAST RADIO INSTRUCTION.** Instructions broadcast over one or more radio stations available to the public but allows listeners to exercise the option of registering with your institution and meeting its requirements. The registration to be reported is that for which there is some evidence of participation, e.g., registration for credit, purchase of a study guide, etc.

### COMMUNITY DEVELOPMENT AND COMMUNITY SERVICE PROGRAMS

Community development and community service programs ordinarily focus on (a) citizen participation in improving the physical and social environment, (b) the problem-solving process, and/or (c) services to the public as a whole.

### CONSULTATION OR TRAINING SERVICES

This includes counseling or training services given as part of a community development or community service program.

### PROFESSIONAL REFRESHER COURSE

This includes study carried on by practicing members of a profession (dentistry, engineering, law, medicine, etc.), as a means of keeping abreast of developments which directly affect them.

**NOTE:** Since community development and community service programs, and professional refresher courses utilize one or several of the types of activity listed above, they should be reported in terms of those activities in Part I and they should also be reported separately in Parts IV and VI, respectively.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE OFFICE OF EDUCATION WASHINGTON, D.C. 20202		BUDGET BUREAU NO. 51-867017 APPROVAL EXPIRES: 12-31-68
<b>HIGHER EDUCATION GENERAL INFORMATION SURVEY</b>  <b>SELECTED ADULT EDUCATION ACTIVITIES IN INSTITUTIONS OF HIGHER EDUCATION, 1967-68</b>		REPORTING DATE NOT LATER THAN 9-1-68
Please read instructions and definitions before completing this form.		1. INSTITUTION CODE NUMBER
2. CORPORATE NAME AND ADDRESS OF INSTITUTION (Include ZIP Code)	3. NAME AND TITLE OF COORDINATOR	
	4. AREA CODE - TELEPHONE NUMBER - EXTENSION	
5. IF IN 1967-68 YOUR INSTITUTION CONDUCTED NO ADULT EDUCATION ACTIVITIES AS DEFINED IN THIS SURVEY, CHECK BOX BELOW. COMPLETE ITEMS 1 THROUGH 4 ONLY AND RETURN THIS FORM TO U.S. OFFICE OF EDUCATION. OTHERWISE, COMPLETE ALL APPLICABLE ITEMS.		
<input type="checkbox"/> NO ACTIVITIES IN SCOPE OF THIS SURVEY		

#### ADULT EDUCATION ACTIVITIES, 1967-68

**PART I - TYPES OF ACTIVITIES AND REGISTRATION.** In Columns (b) and (c), enter the estimated or anticipated total registration for this type of activity. For each activity with over 200 registrants, please report details in Part III. This tabulation includes activities of community development and community service programs with 3 or more hours of planned instruction. Professional refresher courses also may involve more than one type of activity and are included in this tabulation. Details are reported in Parts IV and VI. These data do not reflect consultation services which are separately reported in Part V.

TYPE OF ACTIVITY (a)	ESTIMATED REGISTRATIONS		TYPE OF ACTIVITY (a)	ESTIMATED REGISTRATIONS	
	DEGREE-CREDIT OPTIONAL ACTIVITIES (b)	NONCREDIT ACTIVITIES (c)		DEGREE-CREDIT OPTIONAL ACTIVITIES (b)	NONCREDIT ACTIVITIES (c)
1. CLASSES			8. BROADCAST TV INSTRUCTION		
2. SHORT COURSES			9. CLOSED CIRCUIT AUDIO-INSTRUCTION		
3. CONFERENCES, INSTITUTES, AND/OR WORKSHOPS			10. BROADCAST RADIO INSTRUCTION		
4. LECTURE SERIES			11. OTHER (Specify)		
5. DISCUSSION GROUPS					
6. CORRESPONDENCE COURSES			12.		
7. CLOSED CIRCUIT TV INSTRUCTION					

**PART II - SUMMARY OF LISTINGS.** Enter the total number of activities in 1967-68 for each item listed below. An activity is defined as an individual lecture series, correspondence course, discussion group, etc.

ITEM	NUMBER OF ACTIVITIES
1. COURSES OF INSTRUCTION WITH 200 OR MORE TOTAL REGISTRATIONS (List in Part III)	
2. COMMUNITY DEVELOPMENT PROGRAMS AND COMMUNITY SERVICE PROGRAMS (List in Part IV)	
3. PROFESSIONAL REFRESHER COURSES (List in Part VI)	

CORPORATE NAME OF INSTITUTION

1. INSTITUTION CODE NUMBER

**PART III - ACTIVITIES WITH OVER 200 REGISTRATIONS.** For any individual adult education activity such as an institute, a conference, short course, etc., with 200 or more registrations, please furnish the detail outlined below. **NOTE:** Exclude community development and community service program activities, consultative service, and professional refresher courses. They are separately reported in Parts IV, V, and VI, respectively.

NAME OF PROGRAM (a)	ESTIMATED REGISTRA- TIONS (b)	SPONSORING ADMINISTRA- TIVE UNIT (c)	TYPE OF ACTIVITY (Use categories listed in Part I.) (d)	SUBJECT OR AREA OF MAJOR PROGRAM INTEREST* (e)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

\*Select subject or area of major program interest from the following list:

Agriculture &amp; forestry

Education

Humanities

Social science &amp; psychology

Biological sciences

Engineering

Law

Interdisciplinary (if no single

Business &amp; commerce

Health professions

Physical sciences &amp; mathematics

area was the focus)

All other areas (specify)

CORPORATE NAME OF INSTITUTION

1. INSTITUTION CODE NUMBER

**PART IV - COMMUNITY DEVELOPMENT AND COMMUNITY SERVICE PROGRAMS.** Exclude consultation services, which are to be reported in Part V, if offered. Each activity of the program which includes 3 or more hours of planned instruction is to be listed separately. Select from Part I the type of activity applicable, record it in Column (e) and report details in Columns (f) and (g).

NAME OF PROGRAM (a)	TOPICS COVERED (If not fully indicated by name of program) (b)	PROGRAM FEDERALLY SPONSORED IN WHOLE OR PART		TYPE OF ACTIVITY (Use categories listed in Part I.) (e)	ESTIMATED REGISTRATIONS	
		YES (c)	NO (d)		DEGREE-CREDIT OPTIONAL ACTIVITIES (f)	NON-CREDIT ACTIVITIES (g)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

CORPORATE NAME OF INSTITUTION

1. INSTITUTION CODE NUMBER

**PART V - CONSULTATION SERVICE IN CONJUNCTION WITH  
COMMUNITY DEVELOPMENT AND COMMUNITY SERVICE PROGRAMS**

NAME OF COMMUNITY DEVELOPMENT OR COMMUNITY SERVICE PROGRAM, AS IN PART IV (a)	RECIPIENT OF SERVICE OFFERED (b)	PURPOSE OF CONSULTATION (Brief description) (c)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

CORPORATE NAME OF INSTITUTION

1. INSTITUTION CODE NUMBER

**PART VI - PROFESSIONAL REFRESHER COURSES.** Each professional refresher course which includes 3 or more hours of instructional activities is to be listed separately. Since each course may combine several types of instruction, select from Part I, the type of instruction(s) applicable to each course and record it in Column (d).

PROFESSION (a)	ESTIMATED REGISTRA- TIONS (b)	SPONSORING ADMINISTRA- TIVE UNIT (c)	TYPE OF ACTIVITY (Use categories listed in Part I.) (d)	TOPIC (e)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

#### RELATED NCES PUBLICATIONS

HE 5.213:13036	Noncredit Activities in Institutions of Higher Education, 1967-68: Institutional Distribution
HE 5.213:13036-68	Noncredit Activities in Institutions of Higher Education, 1967-68: Registrations
HE 5.213:13041	Participation in Adult Education, 1969: Initial Report
HE 5.213:13037-70	Adult Basic Education Program Statistics, Students and Staff Data, July 1, 1969-June 30, 1970, and Summary of Years 1966-70
FS 5.254:54003	Opening Fall Enrollment in Higher Education, 1967
HE 6.280:80069	Inventory of Vocational Education Statistics Available in Federal Agencies
HE 5.280:80073	Vocational Education: Characteristics of Teachers and Students, 1969

ERIC Clearinghouse

AUG1 1973

on Adult Education